

TOWN OF WESTON
CONSERVATION COMMISSION

INLAND WETLANDS AND WATERCOURSES APPLICATION FORM

This Application is for a five-year permit to conduct a regulated activity or activities pursuant to the Inland Wetlands and Watercourses Regulations of the Town of Weston ("The Regulations")

TITLE OF PROJECT: (general purpose) WESTON DOG PARK

ADDRESS OF PROPERTY: LORDS HIGHWAY EAST

Utility pole # nearest entrance: 5527 Assessor's Map # 17 Block # 1 Lot # 17
Total Acres 36.173 Total Acres of Wetlands and Watercourses NONE
Acreage of Wetlands and Watercourses Altered NONE Upland Area Altered: 0.79 Acres
Linear Feet of Stream Alteration NONE Total Acres Proposed Open Space

OWNER(S) (Please list all owners, attach extra sheet if necessary)

Name: TOWN OF WESTON Phone: 203 222 2530
Address: 56 NORFIELD ROAD WESTON, CT 06883
Email: TRULIKOWSKI@WESTON.CT.GOV

APPLICANT/AUTHORIZED AGENT

Name: JOHN CONTE P.E. Phone: 203 222 2680
Address: 24 SCHOOL ROAD WESTON CT 06883
Email: JCONTE@WESTON.CT.GOV

CONSULTANTS (Please provide, if applicable)

Engineer: JOHN CONTE P.E. TOWN ENGINEER Phone: 203 222 2680
Address: 24 SCHOOL ROAD WESTON CT 06883
Email: JCONTE@WESTON.CT.GOV

Soil Scientist: OTTO R. THENL Phone: 203 845 0278
Address: 2 HLOYD ROAD NORWALK CT 06850
Email: SOILWETLANDSSCI@GOL.COM

Legal Counselor: PAT SULLIVAN Phone: 203 337 4124
Address: 1115 BROAD ST BRIDGEPORT CT 06604
Email: PSULLIVAN@COHENANDWOLF.COM

Surveyor: PAH INC LAND SURVEYORS Phone: 860 354 6599
Address: 35 DANBURY RD. NEW MILFORD CT 06776
Email: PAUL HIRO@GMAIL.COM

For Commission Use Only

APPLICATION NO. _____
REC'D IN OFFICE _____
IF PUBLIC HEARING, OPENED _____
ACTION _____

FEE PAID _____
REC'D BY COMM. _____
CLOSED _____

PROPERTY INFORMATION

Property address: LORDS HIGHWAY EAST

The property ☐ is ☒ is not within a subdivision

Property to be affected by proposed activity contains:

☐ wetlands soils ☐ bog ☐ swamp ☐ lake or pond
☐ floodplain ☐ stream or river ☐ marsh ☐ other NONE

The proposed activity will involve the following within wetlands, watercourse, and/or review area:

☐ Alteration ☐ Construction ☐ Pollution
☐ Discharge to ☐ Discharge from ☐ Bridge or Culvert
☐ Removal of Materials ☐ Deposition of Materials
☒ Other NONE

Amount, type, and location of materials to be removed, deposited, or stockpiled:

1280 CY TO BE EXCAVATED ON SITE AND
HAILED AWAY.

Description, work sequence, and duration of activities:

SEE PLANS PREPARED BY THE TOWN
OF WESTON - WESTON DOG PARK.

Describe alternatives considered and why the proposal described herein was chosen:

FIRST PROPOSED ACCESS WAS TO BE OFF
OF DODD'S HILL. NEW PROPOSED ACCESS WAY
TO BE OFF OF LORDS HIGHWAY EAST, NO
WETLANDS IN THIS AREA AND GRADES ARE
BETTER.

The activity ☐ does ☒ does not involve the installation or repair of a septic system(s)

The Westport Weston Health District ☐ has approved ☐ has not approved the plan

Square feet of proposed impervious surfaces (roads, buildings, parking, etc.): 34,412.0

ADJOINING MUNICIPALITIES AND NOTICE:

If any of the situations below apply, the applicant is required to give written notice of his/her application to the Inland Wetlands Agency of the adjoining municipality, on the same day that he/she submits this application. Notification must be sent by Certified Mail with Return Receipt Requested.

- ☐ The property is located within 500 feet of any town boundary line;
- ☐ A significant portion of the traffic to the completed project will use streets within the adjoining municipality to enter or exit the site;
- ☐ A portion of the water drainage from the project site will flow through and significantly impact the sewage system or drainage systems within the adjoining municipality; or
- ☐ Water runoff from the improved site will impact streets or other municipal or private property within the adjoining municipality

AQUARION WATER COMPANY

Pursuant to Section 8.4 of the Weston regulations, the Aquarion Water Company must be notified of any regulated activity proposed within its watersheds. Maps showing approximate watershed boundaries are available at the office of the Commission. If the project site lies within these boundaries, send notice, site plan, and grading and erosion control plan via certified mail, return receipt requested, within seven (7) days of submitting application to the Commission, to:


Brian Roach, Aquarion Water Company
714 Black Rock Turnpike
Easton, CT 06612

The Commissioner of the Connecticut Department of Public Health must also be notified in the same manner in a format prescribed by that commissioner.

The undersigned, as owner(s) of the property, hereby consents to necessary and proper inspections of the above mentioned property by Commissioners and agents of the Conservation Commission, Town of Weston, at reasonable times, both before and after a final decision has been issued by the Commission.

The undersigned hereby acknowledges to have read the "Application Requirements and Procedures" in completing this application.

The undersigned hereby certifies that the information provided in this application, including its supporting documentation is true and he/she is aware of the penalties provided in Section 22a-376 of the Connecticut General Statutes for knowingly providing false or misleading information.



Signature of Owner 1




Date

Signature of Owner 2

Date

FOR OFFICE USE ONLY

☐ Administrative Approval

Initials

Date

79 Elm Street • Hartford, CT 06106-5127

www.ct.gov/deep

Affirmative Action/Equal Opportunity Employer

Statewide Inland Wetlands & Watercourses Activity Reporting Form

Please complete - print clearly - and mail this form in accordance with the instructions on pages 2 and 3 to:
Wetlands Management Section, Inland Water Resources Division, CT DEEP, 79 Elm Street - 3rd Floor, Hartford, CT 06106

PART I: To Be Completed By the Municipal Inland Wetlands Agency Only

- DATE ACTION WAS TAKEN (enter one year and month): Year _____ Month _____
- ACTION TAKEN (enter one code letter): _____
- WAS A PUBLIC HEARING HELD (check one)? Yes _____ No _____
- NAME OF AGENCY OFFICIAL VERIFYING AND COMPLETING THIS FORM:
(type name) _____ (signature) _____

PART II: To Be Completed By the Municipal Inland Wetlands Agency or the Applicant

- TOWN IN WHICH THE ACTION IS OCCURRING (type name): WESTON
Does this project cross municipal boundaries (check one)? Yes _____ No X
If Yes, list the other town(s) in which the action is occurring (type name(s)): _____
- LOCATION (see directions for website information): USGS Quad Map Name: _____ or Quad Number: 108
Subregional Drainage Basin Number: 7200
- NAME OF APPLICANT, VIOLATOR OR PETITIONER (type name): Town of Weston
- NAME & ADDRESS/LOCATION OF PROJECT SITE (type information): DAVIS HILL ROAD
LORDS HIGHWAY EAST
Briefly describe the action/project/activity (check and type information): Temporary _____ Permanent X
Description: CONSTRUCTION of A PARKING AREA WESTON DOG
& ACCESS WAY PARK
- ACTIVITY PURPOSE CODE (enter one code letter): 8
- ACTIVITY TYPE CODE(S) (enter up to four code numbers): 9 12 _____
- WETLAND / WATERCOURSE AREA ALTERED (type in acres or linear feet as indicated):
Wetlands: 0 acres Open Water Body: 0 acres Stream: 0 linear feet
- UPLAND AREA ALTERED (type in acres as indicated): 6.79 acres
- AREA OF WETLANDS / WATERCOURSES RESTORED, ENHANCED OR CREATED (type in acres as indicated): 0 acres

DATE RECEIVED:

PART III: To Be Completed By the DEEP

DATE RETURNED TO DEEP:

FORM COMPLETED: YES NO

FORM CORRECTED / COMPLETED: YES NO

TOWN of WESTON, CONNECTICUT



Incorporated 1787

Town Engineer's Office

January 23, 2018

Weston Conservation Commission
Weston Town Hall
56 Norfield Road
Weston, CT

Attention: Commission Members

Re: Weston Dog Park
New Application

Dear Commission Members:

The enclosed design plans and report with project description is a new application for the Weston Dog Park for an alternate access for the park to the Moore property from Lords Highway East. The original application for the park was to have an access off of Davis Hill Road.

The soils report from Soil & Wetland Science LLC, Otto R. Theall professional soil scientist and design plans demonstrate a better entrance way where there are no wetland soils and no roadway improvements needed to Lords Highway East. The proposed access is mostly hidden from adjoining property owners by utilizing existing topographic conditions. Also enclosed is an Aquifer Protection Area Map by the Connecticut DEEP indicating there are no aquifer protection zones recognized by the DEEP in the area of the proposed dog park. Also enclosed are original soils reports from Otto R. Theall of the first application outlining existing wetlands adjacent to the access way proposed off of Davis Hill Road.

The alternate access route off of Lords Highway East positions itself to be a onetime access construction to utilize the entire Moore Property for the proposed dog park and other natural uses.

John Conte P.E.

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PROJECT DESCRIPTION

The previous Weston Board of Selectmen instructed the Town Engineer to prepare plans and costs for a dog park to be located on a town-owned 36.17 acre parcel located between Davis Hill Road and Lords Highway East, commonly referred to as the Moore Property. The Moore Property, in its present state, is wooded and sectioned-off into square parcels by existing stone walls; see attached site plan titled, "Alternate Road Access Survey" by PAH, Inc. Land Surveyors. The dog park itself would occupy a 3.5 acre stone wall section of the property. The section would be divided into a small dog play area, 0.14 acre in size, and large dog play area, 3.36 acres in size. The 3.5 acre section is well-hidden from abutting property owners. The closest property owners on Richmond Hill Road are within 446 feet of the park. As indicated in the attached plan created by a landscape architect, the dog park would feature fencing, signage and a double-gated entry/exit system.

The Dog Park Rules of operation, which have the support of the Weston Dog Park, Inc. and the Weston Parks and Recreation Commission, are listed in Appendix H. Hours of operation are from dawn to dusk. The proposed dog park will be open year-round, except for inclement weather and maintenance. When the proposed park is closed, the proposed access way will be gated off. During the months of operation, the Parks & Recreation Department and/or the Weston Public Works Department will have the responsibility of maintenance for the proposed park. During the months the proposed dog park is open, the Weston Police Department will routinely patrol the park at night. The Weston Animal Control Officer will have the responsibility of enforcing the rules of operation. A typical dog waste dispenser is shown in Appendix C, for the collection of dog waste.

Access to the dog park would be from Lords Highway East, approximately 0.15 tenths of a mile west of the intersection of Lords Highway East and Davis Hill Road. A previous plan for a dog park called for access off of Davis Hill Road. The Board of Selectmen now prefers that access be via Lords Highway East because of its superior grading, soils and site line. The proposed driveway would be 1,280 feet long and 20 feet wide. At the end of the driveway is an 80-foot diameter cul-de-sac that will accommodate turn-arounds for both public and emergency vehicles. The dimensions of the proposed driveway would meet the Town of Weston's road standards for a "neighborhood lane." The proposed driveway is situated in a location where most of the driveway is hidden from abutting property owners by use of existing topographic features. The entire proposed driveway will be constructed of asphalt millings which the Town already has an abundance of stock-piled at the Transfer Station. No portion of the proposed driveway would be paved. The driveway leads to a parking area that would accommodate 22 motor vehicles, with a provision to accommodate 22 more motor vehicles.

An extensive soils study indicates that no wetlands exist in the area of the proposed dog park, including the proposed driveway and parking area. Attached is the soils report that was prepared by Soil and Wetland Science, LLC, Otto R. Theall, professional soil scientist [see Appendix A]. The soils report also indicates the other soils in this area are Woodbridge, sandy loam, Paxton, and Montauk loams. These soils are considered moderately well-drained to well-drained.

A small portion of the Moore Property and a section of Lords Highway East drain to existing catch basins on Lords Highway East. A drainage analysis, for a 50-year storm, was conducted to determine surface runoff, pre and post construction of the proposed driveway. It was determined that with the placement of the proposed driveway an additional 2.3 cubic feet per second of drainage would be created. To compensate for the additional drainage, the design calls for the creation of a 58 foot Cultec 330 HD recharger chamber system [see Appendix B]. The driveway, parking spaces, dog park, and chamber system are shown on the attached site plan, entitled "Site Plan Alternate Road Access, Plan and Profile Alternate Road Access and Construction Notes and Details Alternate Road Access," dated October 30th, 2017.

Cost estimates, with 20% contingencies, were prepared indicating four different scenarios of construction. In consideration of the aforementioned MOU, the cost estimates show the cost share between the Town and the Weston Dog Park, Inc. [see Appendix D]. Tree removal will take place in the proposed driveway and parking areas. In the proposed dog park area, only dead trees will be removed, as healthy trees will provide shade for both dogs and humans. It is estimated the total number of trees to be removed for the construction of the proposed driveway and parking area will be approximately 140 trees with diameters ranging from 6-12 inches, and a very few having a diameter of up to 30 inches. Tree limbs within the proposed dog park area are to be trimmed 7 feet up from ground surface. All other trees are to remain.

The proposed dog park access to and from Lords Highway East presents no sight line issues, no need for roadway reconfiguration, and no traffic issues. Only three trees need to be removed from the sight line in the west direction. No trees are needed to be removed in the east direction for sight line. Automated traffic counts were conducted on Lords Highway East, in the east and west-bound lanes, for two days, from the dates of 11/28/17 to 11/30/17 [see Appendix E]. The traffic counts were completed by the Weston Police Department. The counts were conducted, hour-by-hour for 24 hours each day. The average daily vehicles-per-day count in the eastbound lane was 122 for a 24-hour count. The average daily vehicles-per-day count in the westbound lane was 135 for a 24-hour count. With the recorded traffic counts and field information completed, a highway capacity analysis was conducted with the aid of the Western Connecticut Council of Governments. The analysis showed a percent free-flow speed for the projected year of 2022 to be 91.0%. For the definition of percent free-flow speed, see Appendix F, Highway Capacity Analysis. With Lords Highway East being a Class III roadway and a PFFS of 91.0%, the level of service is "B." The Council of Governments also ran an intersection capacity analysis of the proposed intersection of Lords Highway East and the proposed access of the dog

park. The analysis for the projected year of 2022 indicated the level of service would be “A.” The highway capacity analysis also indicated that Lords Highway East in its present condition has a directional capacity in the westbound lane of 1,698 vehicles per hour. The Council also ran the program for the eastbound lane of Lords Highway East and found the eastbound lane can handle the same 1,698 vehicles per hour [see Appendix F, Highway Capacity Analysis and letters from Robert Brinton, Weston Connecticut Council of Governments]. The analysis documents that the proposed intersection of Lords Highway East, at the site driveway, can accommodate the proposed site traffic with little noticeable change in operational efficiency and safety.

APPENDIX "A"

SOILS REPORT

SOIL & WETLAND SCIENCE, LLC

OTTO R. THEALL

**PROFESSIONAL SOIL SCIENTIST
PROFESSIONAL WETLAND SCIENTIST**

**2 LLOYD ROAD
NORWALK, CONNECTICUT 06850**

OFFICE (203) 845-0278

CELL (203) 247-0650

FAX (203) 354-4881

EMAIL: soilwetlandsci@aol.com

SOIL INVESTIGATION REPORT

PARCEL 17-1-17

DAVIS HILL ROAD

WESTON, CONNECTICUT

OCTOBER 17, 2017

I conducted an on-site investigation of the soils on portions of the vacant property known as Parcel 17-1-17, located on Davis Hill Road and Lord's Highway East in Weston, Connecticut on June 29, 2016 and again on August 21, 2017 and again October 17, 2017. The examination for wetland soils was conducted in the field by inspection of soil samples taken with spade and auger.

The wetland lines near Davis Hill Road were marked in the field on the first two visits with flags numbered 1 through 8 and 201 through 207. The wetland soils consist of Leicester fine sandy loam (4). The non-wetland soils consist of Sutton fine sandy loam, extremely stony (52), Hollis-Chatfield-Rock outcrop complex (75) and Paxton and Montauk fine sandy loams (84).

On the last visit to the site, on October 17, 2017, there no wetland soils found within 100 feet of the proposed road. Fifty soil samples were taken during that visit. The soils in and around the proposed the road location consist of Woodbridge fine sandy loam, very stony (46) and Paxton and Montauk fine sandy loams (84). I am told that someone tried to claim that Woodbridge soils are frequently flooded. That is not the case. The water table in these soils is typically only within 18 to 30 inches of the ground's surface at the wettest time of the year. The Soil Survey of the State of Connecticut puts it this way – "Flooding: none." (page 119) The soil map units contain inclusions of other soil types.

Respectfully submitted:



Otto R. Theall
Professional Soil Scientist

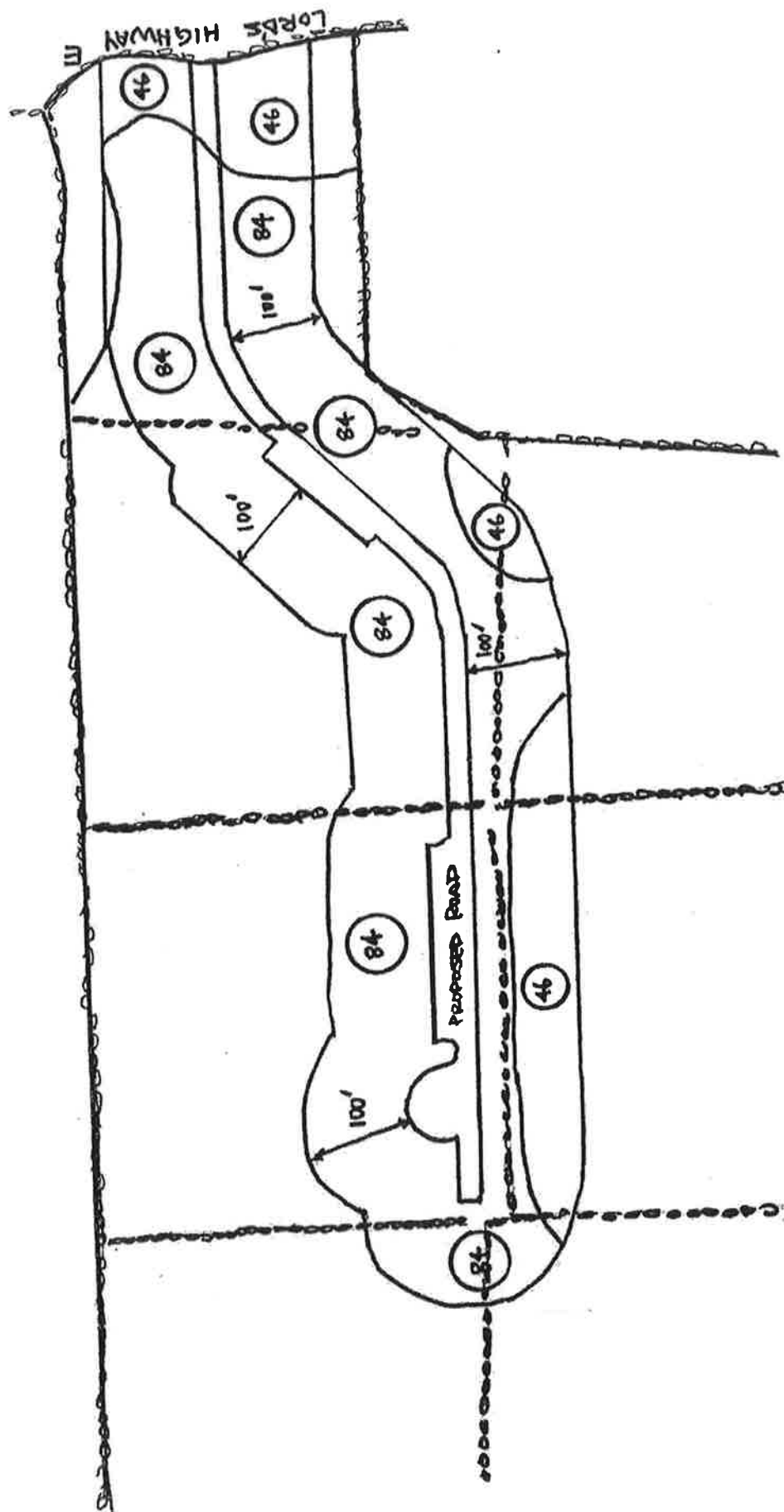
SOIL SURVEY SKETCH MAP
LORD'S HIGHWAY EAST DOG PARK
WESTON, CONNECTICUT
SOIL & WETLAND SCIENCE, LLC
OTTO R. THEALL
PROFESSIONAL SOIL SCIENTIST
OCTOBER 17, 2017

SOIL LEGEND:

Non-wetland Soils:

46 = Woodbridge f. sandy loam, v. s.

84 = Paxton & Montauk f. s. loams





Town Engineer's Office

November 2, 2017

Nina Daniel, First Selectman
Jonathan Luiz, Town Administrator
Tracy Kulikowski, Land Use Director
Weston Town Hall
Norfield Road
Weston, CT 06883

Re: Soils Report
Weston Dog Park

Jonathan:

In conjunction with the soils report I have received from Otto Theall Professional Soil Scientist it was found with an extensive study from Mr. Theall that there were no wetlands soils found in the area of the proposed access drive to enter the dog park from Lords Highway East.

Soils found on site of the proposed access drive were Woodbridge, Paxton and Montauk. Most of the proposed access falls within the Paxton and Montauk soils. As stated in Mr. Theall's report this area is not prone to flooding. I inspected the site on the date of October 30, 2017 directly after a large rain storm that occurred on the dates of October 29 & 30 2017 dropping approximately 4 inches of rain. My site inspection found no flooding or standing water in the area of the proposed access or Dog Park.

I have enclosed additional information and definitions of the three soils identified by Mr. Theall published by the State of Connecticut. The information clearly shows the three soils to be well or moderately drained soils.

In conclusion this area is acceptable for the placement of the proposed access drive to provide municipal activities of the entire Moore Property.

A handwritten signature in black ink, appearing to read "John Conte". The signature is fluid and cursive, with the first name "John" and last name "Conte" clearly distinguishable.

John Conte P.E.
Town Engineer

Established Series
Rev. MFF-JTI-DHZ
05/2016

WOODBRIDGE SERIES

The Woodbridge series consists of moderately well drained loamy soils formed in lodgment till. They are very deep to bedrock and moderately deep to a densic contact. They are nearly level to moderately steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 25 percent. Saturated hydraulic conductivity ranges from moderately high to high in the surface layer and subsoil and low or moderately low in the dense substratum. Mean annual temperature is about 9 degrees C., and mean annual precipitation is about 1168 mm.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Aquic Dystrudepts

TYPICAL PEDON: Woodbridge fine sandy loam - grass field, at an elevation of about 177 meters. (Colors are for moist soil unless otherwise noted.)

Ap--0 to 18 cm; very dark grayish brown (10YR 3/2) fine sandy loam, light brownish gray (10YR 6/2) dry; moderate medium granular structure; friable; many fine and medium roots; few very dark brown (10YR 2/2) earthworm casts; 5 percent gravel; moderately acid; abrupt wavy boundary. (10 to 30 cm thick.)

Bw1--18 to 46 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; few very dark brown (10YR 2/2) earthworm casts; 10 percent gravel; moderately acid; gradual wavy boundary.

Bw2--46 to 66 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; few very dark brown (10YR 2/2) earthworm casts; 10 percent gravel; few medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; gradual wavy boundary.

Bw3--66 to 76 cm; light olive brown (2.5Y 5/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; common medium prominent strong brown (7.5YR 5/6) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; clear wavy boundary. (Combined thickness of the Bw horizons is 31 to 94 cm.)

Cd1--76 to 109 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; weak thick plates of geogenic origin; very firm, brittle; 20 percent gravel; many medium prominent strong brown (7.5YR 5/8) masses of iron accumulation and light brownish gray (10YR 6/2) areas of iron depletion; moderately acid; gradual wavy boundary.

Cd2--109 to 165 cm; light olive brown (2.5Y 5/4) gravelly fine sandy loam; weak thick plates of geogenic origin; very firm, brittle; few fine prominent very dark brown (10YR 2/2) coatings on plates; 25 percent gravel; common fine prominent strong brown (7.5YR 5/8) masses of iron accumulation; moderately acid.

TYPE LOCATION: Tolland County, Connecticut; town of Mansfield, 0.75 mile south of the intersection of Connecticut Routes 275 and 195, and 0.25 mile east on the University of Connecticut Agronomy Farm, 800 feet north of the greenhouses near the corner of a brushy field. USGS Spring Hill, CT topographic quadrangle, Latitude 41 degrees, 47 minutes, 53.43 seconds N., Longitude 72 degrees, 13 minutes, 48.69 seconds W., WGS

1984.

RANGE IN CHARACTERISTICS: The thickness of the solum and depth to densic materials is 50 to 100 cm. Depth to bedrock is commonly more than 2 meters. Rock fragments commonly range from 0 to 35 percent. Except where the surface is stony, the fragments are mostly subrounded gravel and typically make up 60 percent or more of the total rock fragments. Unless limed, reaction ranges from very strongly acid to slightly acid.

Some pedons have an O horizon.

The Ap horizon has hue of 10YR, value of 3 or 4, and chroma of 2 to 4. Dry value is 6 or more. Undisturbed pedons have a thin A horizon commonly with hue of 7.5YR or 10YR but the range includes 2.5Y, value of 2 or 3 and chroma of 1 or 2. The Ap or A horizon is loam, fine sandy loam, or sandy loam in the fine-earth fraction.

Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3.

The upper part of the Bw horizon has hue of 7.5YR to 2.5Y, value of 3 to 6, and chroma of 3 to 8. The lower part of the Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Iron depletions are within 60 cm. The Bw horizon is loam, fine sandy loam, or sandy loam with less than 65 percent silt plus very fine sand.

Some pedons have a thin BC horizon.

Some pedons have an E or E' horizon up to 8 cm thick below the B horizon. It has hue of 10YR to 5Y, value of 5 or 6, chroma of 2 or 3, and has redoximorphic features. Typically, it is coarser-textured than the overlying horizon.

Some pedons have a C horizon above the Cd horizon.

The Cd horizon has hue of 10YR to 5Y, value of 4 to 6, and chroma of 1 to 4. It commonly has redoximorphic features. Texture is loam, fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. The structure is not pedogenetically derived, and appears in the form of medium to very thick plates, or it is massive. Consistence is firm or very firm.

COMPETING SERIES: These are the Chautauqua, North Meadow, Pittstown, Pompton, Rainbow, Sutton, Wapping, and Wilbraham series. Chautauqua, Pompton, Sutton, and Wapping soils do not have a dense substratum. North Meadow soils have a cap of human transported material 25 to 100 cm thick. Pittstown and Rainbow soils have more than 65 percent silt plus very fine sand in the solum. Wilbraham soils are poorly drained and developed from red parent materials (originating from reddish sandstone, shale, and conglomerate with some basalt).

GEOGRAPHIC SETTING: Woodbridge soils are nearly level to moderately steep and are on hills, drumlins, till plains, and ground moraines. Slope commonly is less than 8 percent, but the range includes 0 to 25 percent. The soils formed in acid till derived mostly from schist, gneiss, and granite. Mean annual temperature ranges from 7 to 13 degrees C and mean annual precipitation ranges from 940 to 1250 mm, and the growing season ranges from 115 to 180 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Rainbow, Sutton, and Wapping soils and the Bernardston, Broadbrook, Canton, Charlton, Chatfield, Georgia, Hollis, Leicester, Montauk, Paxton, Ridgebury, Scituate, and Whitman soils on nearby landscapes. The well drained Paxton, somewhat poorly and poorly drained Ridgebury, and the very poorly drained Whitman soils are associated in a drainage sequence. Bernardston and Broadbrook soils are well drained and are finer textured. Canton and Charlton soils are well drained and do not have a dense substratum. Chatfield and Hollis soils have bedrock within depths of 50 to 100 and 25 to 50 cm, respectively. Georgia soils are calcareous within 200 cm. Leicester soils are poorly drained and do not have a dense substratum. Montauk soils are well drained and are coarser textured. Scituate soils have a

loamy sand substratum.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Moderately well drained. The potential for surface runoff is moderate to very high. Saturated hydraulic conductivity is moderately high or high in the solum and low or moderately low in the dense substratum.

USE AND VEGETATION: Many areas are cleared and used for cultivated crops, hay, or pasture. Scattered areas are used for community development. Some areas are wooded. Common trees are red, white, and black oak, hickory, white ash, sugar maple, red maple, eastern hemlock, and eastern white pine.

DISTRIBUTION AND EXTENT: Glaciated uplands of Connecticut, Massachusetts, New Hampshire, eastern New York, and Rhode Island. MLRAs 144A, 145, and 149B. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts

SERIES ESTABLISHED: Essex County, Massachusetts, 1925.

REMARKS: Woodbridge soils were previously used in Maine. Soil temperature studies in Maine have resulted in the use of the frigid soil temperature regime for soils in areas formerly identified as mesic.

Diagnostic horizons and features recognized in this pedon include:

1. Ochric epipedon - the zone from 0 to 18 cm (Ap horizon).
2. Cambic horizon - the zone from 18 to 76 cm (Bw horizons).
3. Aquic feature - low chroma areas of iron depletion within 60 cm (Bw2 horizon).
4. Densic materials - the zone from 76 to 165 cm (Cd1 and Cd2 horizons).
- 5) Particle-size control section - the zone from 18 to 76 cm (Bw horizons).

ADDITIONAL DATA: Full characterization data for pedons with User Pedon IDs of S2000CT013003, S1956NH017002, S1956NH017003, S1958CT013004, S1958MA015002, S1978NH011002, and S1991MA023007. Pedons analyzed by the NSSL, Lincoln, NE. The laboratory characterization data for these pedons and similar soils is available through the National Cooperative Soil Survey Soil Characterization Database: <http://ncsslabsdatamart.sc.egov.usda.gov/>

National Cooperative Soil Survey
U.S.A.

Established Series
Rev. RLM-JWW-MCT
05/2015

MONTAUK SERIES

The Montauk series consists of well drained soils formed in lodgment or flow till derived primarily from granitic materials with lesser amounts of gneiss and schist. The soils are very deep to bedrock and moderately deep to a densic contact. These soils are on upland hills and moraines. Slope ranges from 0 to 35 percent. Saturated hydraulic conductivity is moderately high or high in the mineral solum and low to moderately high in the substratum. Mean annual temperature is about 9 degrees C., and mean annual precipitation is about 1143 mm.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts

TYPICAL PEDON: Montauk loam on a 14 percent slope in a wooded area with a discontinuous layer of undecomposed and slightly decomposed plant material less than 1 cm thick on the surface. (Colors are for moist soil unless otherwise noted.)

Ap-- 0 to 10 cm; very dark gray (10YR 3/1) loam; moderate fine granular structure; very friable; many very fine, fine, medium, and coarse roots; 2 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.1); clear smooth boundary. (5 to 25 cm thick)

BA-- 10 to 34 cm; brown (10YR 4/3) loam; moderate medium and coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 4 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary. (0 to 25 cm thick)

Bw1-- 34 to 65 cm; dark yellowish brown (10YR 4/6) loam; moderate coarse subangular blocky structure; friable; many fine, medium, and coarse roots; many fine and medium pores; 6 percent gravel, 1 percent cobbles, and 1 percent stones; extremely acid (pH 4.3); clear wavy boundary.

Bw2-- 65 to 87 cm; yellowish brown (10YR 5/6) sandy loam; moderate medium and coarse subangular blocky structure; friable; many very fine, fine, and coarse roots; many fine and medium pores; 5 percent gravel and 1 percent cobbles; extremely acid (pH 4.3); clear smooth boundary. (Combined thickness of the Bw horizons is 31 to 86 cm.)

2Cd1-- 87 to 101 cm; strong brown (7.5YR 5/6) gravelly loamy sand; moderate medium plates; firm; few fine roots; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; very strongly acid (pH 4.7); clear wavy boundary. (18 to 76 cm thick.)

2Cd2-- 101 to 184 cm; dark yellowish brown (10YR 4/6) gravelly loamy sand; moderate medium plates; firm; many fine pores; 10 percent gravel, 5 percent cobbles, and 1 percent stones; strongly acid (pH 5.1).

TYPE LOCATION: Queens County, New York; in Alley Pond Park near the Cross Island Parkway. USGS Flushing, NY topographic quadrangle; latitude 40 degrees, 45 minutes, 35 seconds N. and Longitude 73 degrees, 45 minutes, 20 seconds W. WGS 84.

RANGE IN CHARACTERISTICS: The thickness of the mineral solum and depth to the dense substratum from the mineral soil surface ranges from 50 to 100 cm. Rock fragments range from 3 to 35 percent in the solum

and 5 to 50 percent in the substratum. Reaction ranges from extremely acid to moderately acid.

Some pedons have Oi, Oe, and/or Oa horizons overlying the A horizon. Combined thickness of the O horizons is 0 to 10 cm thick.

The Ap horizon has hue of 7.5YR or 10YR, value of 2 to 5, and chroma of 1 to 4. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is granular. Consistence is friable or very friable. Undisturbed pedons have an A horizon that has properties similar to the Ap horizon.

The BA horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 2 to 4. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is subangular blocky or granular. Consistence is friable or very friable.

Some pedons have an E horizon up to 8 cm thick.

The upper part of the Bw horizon has hue of 7.5YR or 10YR, value of 4 or 5, and chroma of 3 to 8. The lower part has hue of 7.5YR to 2.5Y, value of 4 to 6, and chroma of 3 to 6. Texture of the fine-earth fraction is silt loam, loam, fine sandy loam, or sandy loam. Structure is subangular blocky and may part to granular. Consistence is friable or very friable. Some pedons have an E, C, or BC horizon immediately above the Cd.

The Cd layer has hue of 5YR to 5Y, value of 4 to 6, and chroma of 1 to 6. Texture of the fine-earth fraction ranges from coarse sand to fine sandy loam, and at least one sublayer of the Cd is loamy fine sand or coarser. The horizon has plates of geogenic origin or is massive. Consistence is firm or very firm and is brittle. Some pedons have firm dark reddish brown bands up to 1 cm thick that are spaced 12 to 20 cm apart. Silt coatings on the upper side of stones and gravel are common.

COMPETING SERIES: These are the Amostown, Bernardston, Broadbrook, Horseneck, Nantucket, Paxton, Scituate, and Wethersfield series. Amostown and Scituate soils are moderately well drained and have redoximorphic features in the B horizon. The Bearnardston, Nantucket, Paxton, and Wethersfield soils do not have sandy substratums. Broadbrook soils have a silty mantle with more than 65 percent silt plus very fine sand. Horseneck soils formed in friable glacialfluvial deposits and do not have a dense substratum.

GEOGRAPHIC SETTING: Montauk soils are on undulating to hilly slopes of terminal and recessional moraines in MLRA 149B and on glaciated uplands, hills, and ground moraines in MLRAs 144A and 145. Slope ranges from 0 to 35 percent. The soils formed in loamy friable till underlain by firm sandy lodgment or flow till derived from granite with lesser amounts of gneiss and schist. The climate is humid and cool temperate. The mean annual precipitation is 889 to 1422 mm, and the mean annual temperature is 8 to 11 degrees C. The frost-free period ranges from 120 to 200 days. Elevation ranges from 3 to 122 m above sea level.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the well drained Charlton, Chatfield, Riverhead, Canton, and Haven soils that do not have dense substratums, the excessively drained and sandy Carver and Plymouth soils, the moderately well drained Scituate, Sutton, and Woodbridge soils, the somewhat poorly and poorly drained Ridgebury soils, the poorly drained Leicester soils, the very poorly drained Whitman soils, and the shallow Hollis soils.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Well drained. Runoff is low to high. Saturated hydraulic conductivity is moderately high or high in the solum and low to moderately high in the substratum.

USE AND VEGETATION: Many of the nearly level and gently sloping areas are cleared and used for production of potatoes and vegetable crops, hay, silage corn, and pasture. Steeper and uneven areas are largely forested and contain northern red oak, white oak, and occasionally yellow poplar, eastern white pine, red pine, sugar maple, beech, and birch.

DISTRIBUTION AND EXTENT: New York, Connecticut, Massachusetts, New Hampshire and possibly New Jersey and Rhode Island, MLRAs 149B, 144A, and 145. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts

SERIES ESTABLISHED: Suffolk County, New York, 1970.

REMARKS: The typical pedon was updated from 1975NY103005 to the lab-sampled pedon S1998NY081002 that better represents the typical textures, horizonation, and location.

Diagnostic horizons and features recognized in this pedon include:

1. Ochric epipedon - the zone from 0 to 10 cm (Ap horizon).
2. Cambic horizon - the zone from 34 to 87 cm (Bw1 & Bw2 horizons).
3. Densic material - the zone from 87 to 184 cm (2Cd1 and 2Cd2 layers).
4. Oxyaquic subgroup - based on saturation in one or more layers within 100 cm of the mineral soil surface, for either or both 20 or more consecutive days or 30 or more cumulative days.
5. Lithologic discontinuity - at a depth of 87 cm.

ADDITIONAL DATA: Full characterization data for pedons with User Pedon IDs of S1973MA009003, S1987NY103002, S1993MA011001, S1998NY081002, and S02MA-011-002. Pedons analyzed by the KSSL, Lincoln, NE. Laboratory characterization data for these pedons and similar soils is available through the National Cooperative Soil Survey Soil Characterization Database: <http://ncsslslabdatamart.sc.egov.usda.gov/>

National Cooperative Soil Survey
U.S.A.

Established Series
Rev. MFF-SMF-JTI
04/2015

PAXTON SERIES

The Paxton series consists of well drained loamy soils formed in lodgment till. The soils are very deep to bedrock and moderately deep to a densic contact. They are nearly level to steep soils on hills, drumlins, till plains, and ground moraines. Slope ranges from 0 to 45 percent. Saturated hydraulic conductivity is moderately high or high in the surface layer and subsoil and low or moderately low in the substratum. Mean annual temperature is about 10 degrees C., and mean annual precipitation is about 1194 mm.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, mesic Oxyaquic Dystrudepts

TYPICAL PEDON: Paxton fine sandy loam - in a brushy field at an elevation of about 850 feet. (Colors are for moist soil unless otherwise noted.)

Ap -- 0 to 20 cm; dark brown (10YR 3/3) fine sandy loam, pale brown (10YR 6/3) dry; moderate medium granular structure; friable; many fine roots; 5 percent gravel; strongly acid; abrupt smooth boundary. (13 to 28 cm thick)

Bw1 -- 20 to 38 cm; dark yellowish brown (10YR 4/4) fine sandy loam; weak medium subangular blocky structure; friable; common fine roots; 5 percent gravel; few earthworm casts; strongly acid; gradual wavy boundary.

Bw2 -- 38 to 66 cm; olive brown (2.5Y 4/4) fine sandy loam; weak medium subangular blocky structure; friable; few fine roots; 10 percent gravel; strongly acid; clear wavy boundary. (Combined thickness of the Bw horizon is 38 to 94 cm thick.)

Cd -- 66 to 165 cm; olive (5Y 5/3) gravelly fine sandy loam; medium plate-like divisions; massive; very firm, brittle; 25 percent gravel; many dark coatings on plates; strongly acid.

TYPE LOCATION: New Haven County, Connecticut; town of Prospect, 0.4 mile east of Straitsville Road and 0.5 mile north of the Bethany - Prospect town line; USGS Mount Carmel, CT topographic quadrangle; Latitude 41 degrees, 28 minutes, 34 33.79 seconds N., Longitude 72 degrees, 59 minutes, 16 119.19 seconds W., WGS 84

RANGE IN CHARACTERISTICS: Thickness of the mineral solum and depth to the densic contact ranges from 50 to 100 cm. Depth to bedrock is commonly more than 1.5 meters. Rock fragments range from 5 through 35 percent by volume in the mineral soil. Except where the surface is stony, the fragments are mostly subrounded gravel and typically make up 60 percent or more of the total rock fragments. Unless limed, reaction ranges from very strongly acid to slightly acid in the mineral soil.

The O horizon, where present, has hue of 5YR to 10YR or it is neutral, value of 2 or 3 and chroma of 0 to 2. It is mainly composed of slightly, moderately, or highly decomposed plant material.

The Ap horizon has hue of 10YR or 2.5Y, value of 3 or 4, and chroma of 2 to 4. Dry value is 6 or more. The structure is commonly granular but the range includes subangular blocky in some pedons. Undisturbed pedons have a thin A horizon with value of 2 or 3 and chroma of 1 or 2. The Ap or A horizon is loam, fine sandy loam,

or sandy loam in the fine-earth fraction.

Some pedons have a thin E horizon below the A horizon. It has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 1 to 3.

The upper part of the Bw horizon has hue of 7.5YR or 2.5Y, value of 4 to 6, and chroma of 4 to 8. The lower part of the Bw horizon has hue of 10YR or 2.5Y, value of 4 to 6, and chroma of 3 to 6. Some pedons have few faint redoximorphic features just above the Cd horizon. The Bw horizon is loam, fine sandy loam, or sandy loam with less than 65 percent silt plus very fine sand. It has granular or subangular blocky structure. Consistence is friable or very friable.

Some pedons have a BC horizon up to 20 cm thick.

Some pedons have an E or E' horizon up to 8 cm thick below the B horizon. It has hue of 10YR to 5Y, value of 5 or 6, and chroma of 2 or 3. Typically, it is coarser textured than the overlying horizon.

The Cd has hue of 10YR to 5Y, value of 4 to 6, and chroma of 2 to 4. In some pedons there are a few faint or distinct areas of iron depletion or masses of iron accumulation in the upper part. Texture is loam, fine sandy loam, sandy loam, or coarse sandy loam in the fine-earth fraction. A few thin lenses of loamy sand are in some pedons. The structure is geogenetically derived, appearing in the form of medium to very thick plates, or it is massive. Consistence is firm or very firm. Some pedons have a friable C horizon above the Cd horizon.

COMPETING SERIES: These are Amostown, Bernardston, Broadbrook, Horseneck, Nantucket, Scituate, and Wethersfield series. Amostown soils are underlain by stratified very fine sand or silt within a depth of 100 cm. Bernardston and Broadbrook soils have a solum with more than 65 percent silt plus very fine sand. Horseneck soils lack a densic contact. Nantucket soils have a lithologic discontinuity. Scituate soils have sandy substrata. Wethersfield soils have 5YR or redder hue in the B and C horizons.

GEOGRAPHIC SETTING: Paxton soils are nearly level to steep and are on till plains, ground moraines, hills, and drumlins. Slope commonly is 0 to 35 percent, but range from 0 to 45 percent in some pedons. The soils formed in acid lodgment till derived mostly from schist, gneiss, and granite. Mean annual temperature ranges from 7 to 11 degrees C., mean annual precipitation ranges from 940 to 1245 mm, and the growing season ranges from 115 to 180 days.

GEOGRAPHICALLY ASSOCIATED SOILS: These are the competing Bernardston, Broadbrook, and Scituate soils and the Canton, Charlton, Chatfield, Georgia, Hollis, Leicester, Montauk, Narragansett, Pittstown, Ridgebury, Stockbridge, Sutton, Wapping, Whitman, and Woodbridge soils on nearby landscapes. The moderately well drained Woodbridge, poorly drained Ridgebury, and the very poorly drained Whitman soils are associated in a drainage sequence. Canton soils have a friable loamy sand substratum. Well drained Stockbridge and moderately well drained Georgia soils have higher base status. Hollis soils have bedrock within a depth of 25 to 50 cm. Leicester soils are poorly drained and do not have a dense substratum. Montauk soils have sandy substrata. Narragansett soils have a lithologic discontinuity within a depth of 100 cm and a solum high in silt and very fine sand. Sutton and Wapping soils are moderately well drained and do not have a dense substratum.

DRAINAGE AND SATURATED HYDRAULIC CONDUCTIVITY: Well drained. Water may perch on the densic contact for brief periods in late fall through early spring. Surface runoff is negligible to high. Saturated hydraulic conductivity is moderately high or high in the mineral solum and low or moderately low in the substratum.

USE AND VEGETATION: Many areas are cleared and used for cultivated crops, hay, or pasture. Scattered areas are used for community development. Some areas are wooded. Common trees are red, white, and black oak, hickory, sugar maple, red maple, gray and black birch, eastern white pine, and eastern hemlock.

DISTRIBUTION AND EXTENT: Glaciated uplands in Connecticut, Massachusetts, New Hampshire, eastern

New York, Rhode Island, and Vermont. MLRAs 144A and 145. The series is of large extent.

MLRA SOIL SURVEY REGIONAL OFFICE (MO) RESPONSIBLE: Amherst, Massachusetts

SERIES ESTABLISHED: Worcester County, Massachusetts, 1922.

REMARKS: Paxton is the state soil of Massachusetts.

Prior revisions included changes to the range in characteristics as well as general updating to metric units. Cation exchange activity class placement was determined from a review of limited lab data and similar or associated soils. Paxton soils were previously classified as Typic Dystrochrepts, and before that as Typic Fragiochrepts.

The Paxton series was previously used in some surveys in Maine. Maine determined from soil temperature studies that the mesic soil temperature regime would no longer be used. Maine is re-evaluating the soil temperature regimes in southern Maine as of the date of this revision.

Diagnostic horizons and features recognized in this pedon include:

1. Ochric epipedon - the zone from 0 to 20 cm (Ap horizon).
2. Cambic horizon - the zone from 20 to 66 cm (Bw horizons).
3. Densic material - the zone from 66 to 165 cm (Cd horizon).
4. Oxyaquic subgroup - based on saturation in one or more layers within 100 cm of the mineral surface, for one month or more per year, in 6 out of 10 years.
- 5) Particle-size control section - the zone from 20 to 66 cm (Bw horizons).

ADDITIONAL DATA: Full characterization data for pedons with User Pedon IDs of S1955MA027002, S1955NH015001, S1973MA005001, S1973MA005006, S1975CT013001, S1996NH013001, S1999NY061001. Pedons analyzed by the NSSL, Lincoln, NE. Laboratory characterization data for these pedons and similar soils is available through the National Cooperative Soil Survey Soil Characterization Database:
<http://ncsslabsdatamart.sc.egov.usda.gov/>

National Cooperative Soil Survey
U.S.A.

SOIL CATEGORIES OF CONNECTICUT

DEPOSIT	LITHOLOGY	TEXTURE GROUP	SOIL DRAINAGE CLASS	SOIL DRAINAGE CLASS
GLACIAL TILL Unstratified Sand, Silt & Rock	GRANITE & SCHIST	SANDY	GLoucester * WESTMINSTER #	LEICESTER * RIDGEBURY * WHITMAN
	SCHIST, GRANITE & GNEISS	SANDY	* HOLLIS #	
			* CHATFIELD	
			CHARLTON CANTON BICE #	LOOMMEADOW #
	MIXED CARBONATE ROCKS & CRYSTALLINE ROCKS	SANDY	* PAXTON # * MONTAUK * WOODBRIDGE * SHELBURNE #	
			* FARMINGTON	
			PYRTIES # STOCKBRIDGE NELLIS #	
			* HOLYOKE #	
	RED SANDSTONE, SHALE, CONGLOMERATE & BASALT	SANDY	* CHESHIRE #	
			* WETHERSFIELD	
GLACIOFLUVIAL Stratified Sand & Gravel	BROWN MICACEOUS SCHIST	LOAMY	* BROOKFIELD	* WILBRHAM # * MENDEN
	PHYLLITE, SCHIST & SLATE	LOAMY	* TACONIC #	
			* MACOMBER #	
	SHALE, SANDSTONE, BASALT & CRYSTALLINE ROCKS	SANDY / SANDY	* LANESBORO # * DUNMERSTON # * BROADBROOK # * NARRAGANSETT	* BRAYTON #
			* HINCKLEY # * BOSCAWEN # * WINDSOR	
	ACIDIC CRYSTALLINE ROCKS (granite, gneiss and schist)	SANDY / SAND & GRAVEL	* MERRIMAC	WALPOLE MOOSILAUKE #
			* SUDBURY	SCARBORO #
	ACIDIC, RED SANDSTONE, SHALE, CONGLOMERATE	SANDY / SAND & GRAVEL	* AGAWAM * ENFIELD # * HAVEN * BRANFORD	RAYPOL
			* HARTFORD	
	MIXED CARBONATE ROCKS & CRYSTALLINE ROCKS	SANDY / SAND & GRAVEL	* CORPANE	FREDON HALSEY #
GLACIOFLUVIAL Stratified Sand, Silt & Clay	MIXED CRYSTALLINE & SEDIMENTARY ROCKS	SILTY	* BELGRADE # * ELBRIDGE # * BRANCOFT # * BERLIN	SATIN # SHAKER # SCOTTS # MAYBID #
	GNEISS, SCHIST, GRANITE & QUARTZITE	SANDY	* ONDARA # * OCCUM # * HADLEY #	RUNNEY # RIPPONWAM LIMERICK SACO
			* POOTATUCK # * WINDOSKI #	
	MIXED CRYSTALLINE & SEDIMENTARY ROCKS	LOAMY	* BASH #	
			* WINDOSKI #	
	FRESHWATER (INLAND)	SANDY	* CATDEN # * FREETOWN * BUCKSPORT # * NATCHAUG # * WONSQUEAK #	RHODESPOLLY MARSHNECK FORT NECK PISHAGUA WEQUETEQUOCK
			* TIMAKWA # * PAWCATUCK * WESTBROOK	ANGUILLA NAPATREE BILLINGTON
	SALT AND BRACKISH (TIDAL)	SANDY	* IPWICH	
			* VARIABLE	
	COMMON	SANDY	* CATDEN # * FREETOWN * BUCKSPORT # * NATCHAUG # * WONSQUEAK #	
			* TIMAKWA # * PAWCATUCK * WESTBROOK	

* Indicates soils underlain by compact fill.
 * Indicates shallow soils less than 20 inches (< 50 cm) to bedrock.
 -- Indicates moderately deep soils 20 to 40 inches (50-100 cm) to bedrock.
 # Indicates soils with mean annual soil temperature less than 8°C or 46.4°F (elevations of >1,300 feet/396 meters in Litchfield County) in frigid soils.
 ++ Coastal subaqueous soils are covered with saline water for more than 21 hours per day.
 1-33 Annotations to referenced soil series no longer used in CT.

SOIL SERIES NO LONGER USED IN CONNECTICUT		
1. Acton	9. Buxton	17. Jaffrey
2. Adrian	10. Carlisle	18. Kendala
3. Au Gres	11. Dover	19. Lyons
4. Bermudian	12. Eel	20. Massena
5. Biddeford	13. Elmwood	21. Melrose
6. Birchwood	14. Genesee	22. Palms
7. Birdsall	15. Granby	23. Pogonook
8. Bowmansville	16. Hardland	25. Rowland
		26. Scanlon
		27. Sola
		28. Stapleigh
		29. Sunderland
		30. Swanton
		31. Wallington
		32. Wareham
		33. Whately

Historical Soil Series

Since the publication of the soil surveys for all eight Connecticut counties, the classification of soils has continued to evolve. When using the historical published soil surveys, one will encounter a variety of soil series names not currently in use. These series, noted above, are referenced by number to the most current name available at the time of this publication. For example, the soil mapped as Acton, if classified by today's standards, may be named Sutton.

Charts on this page supplement all Connecticut soil surveys by referring to both current and previously used soil series names. However, since there are some major differences in map units and soil series interpretations from survey to survey, it is necessary to refer to the narrative descriptions within the appropriate archived survey to obtain complete information concerning a particular soil.

Official Soil Series Descriptions

More detailed information about each soil series is located on the USDA-NRCS soils webpage under Official Soil Series Descriptions (OSDs). This site is updated and maintained online as the official source of tentative and established soil series.

APPENDIX “B”

DRAINAGE REPORT

Dog Park Lords Highway East

Prepared by Microsoft

HydroCAD® 10.00-20 s/n 01887 © 2017 HydroCAD Software Solutions LLC

Type III 24-hr Rainfall=7.50"

Printed 11/15/2017

Page 1

Summary for Subcatchment 1S: (new Subcat)

Pre Construction

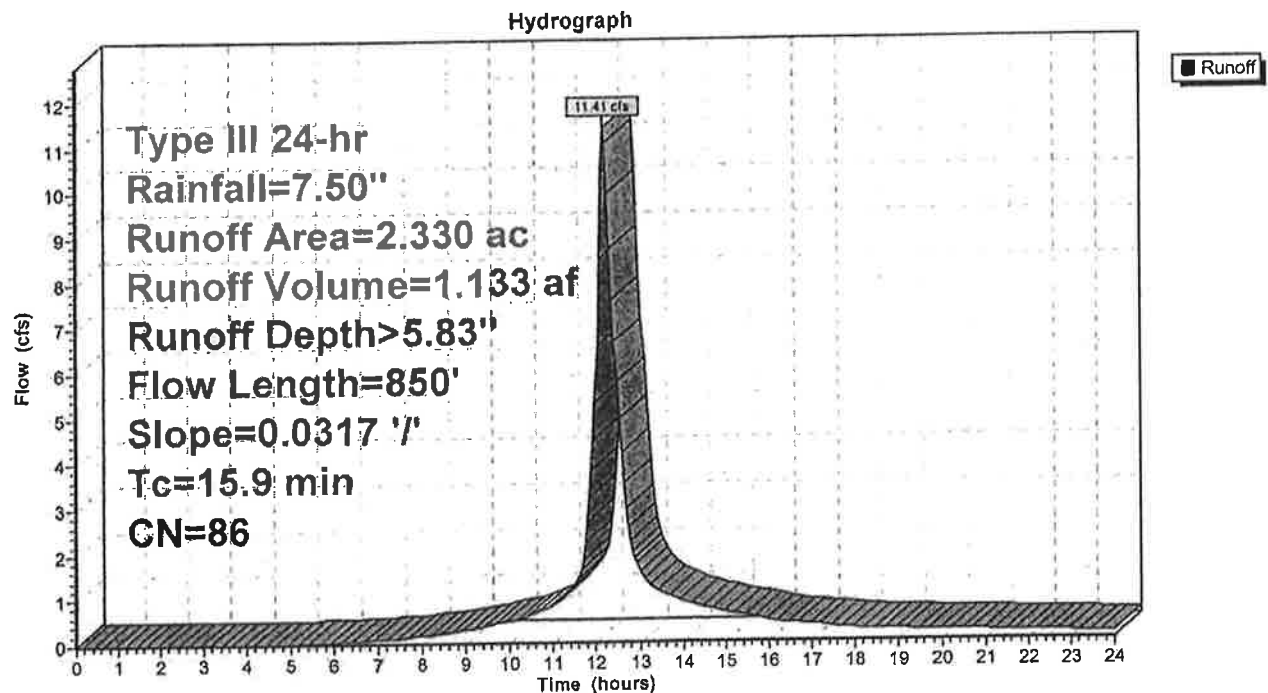
Runoff = 11.41 cfs @ 12.21 hrs, Volume= 1.133 af, Depth> 5.83"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=7.50"

Area (ac)	CN	Description
* 0.120	92	Paved Road
* 2.210	86	Over Land flow
2.330	86	Weighted Average
2.330		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	850	0.0317	0.89		Shallow Concentrated Flow, Over Land Flow Woodland Kv= 5.0 fps

Subcatchment 1S: (new Subcat)



Dog Park Lords Highway East

Prepared by Microsoft

HydroCAD® 10.00-20 s/n 01887 © 2017 HydroCAD Software Solutions LLC

Type III 24-hr Rainfall=7.50"

Printed 11/15/2017

Page 1

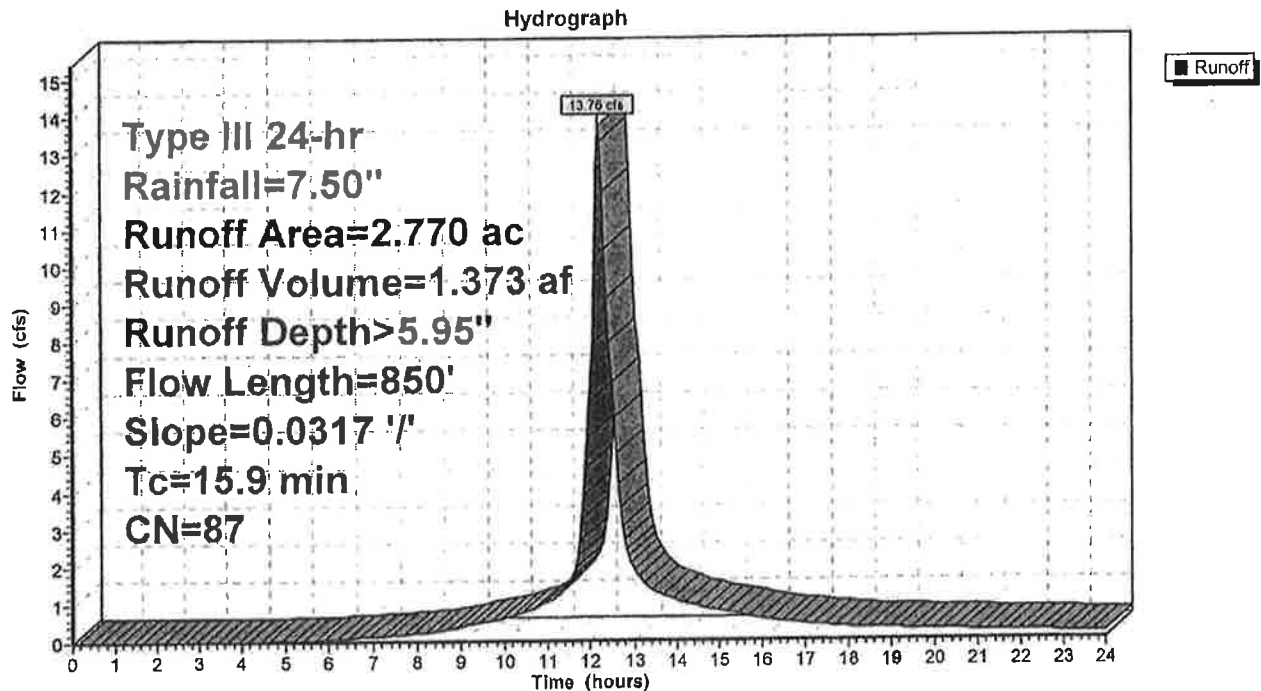
Summary for Subcatchment 1S: (new Subcat)**Post Construction**

Runoff = 13.76 cfs @ 12.21 hrs, Volume= 1.373 af, Depth> 5.95"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=7.50"

	Area (ac)	CN	Description
*	0.120	92	Paved Road
*	2.210	86	Over Land flow
*	0.440	89	Gravel Drive
	2.770	87	Weighted Average
	2.770		100.00% Pervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
15.9	850	0.0317	0.89		Shallow Concentrated Flow, Over Land Flow Woodland Kv= 5.0 fps

Subcatchment 1S: (new Subcat)

Dog Park Lords Highway East

Prepared by Microsoft

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Type III 24-hr Rainfall=7.50"

Printed 11/15/2017

Page 2

Summary for Pond 4P: (new Pond)

Inflow Area = 0.440 ac, 0.00% Impervious, Inflow Depth > 6.19"
 Inflow = 3.11 cfs @ 12.06 hrs, Volume= 0.227 af
 Outflow = 0.06 cfs @ 17.61 hrs, Volume= 0.035 af, Atten= 98%, Lag= 332.9 min
 Primary = 0.06 cfs @ 17.61 hrs, Volume= 0.035 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs
 Peak Elev= 97.71' @ 17.61 hrs Surf.Area= 0.070 ac Storage= 0.196 af

Plug-Flow detention time= 607.6 min calculated for 0.035 af (15% of inflow)
 Center-of-Mass det. time= 384.2 min (1,163.6 - 779.3)

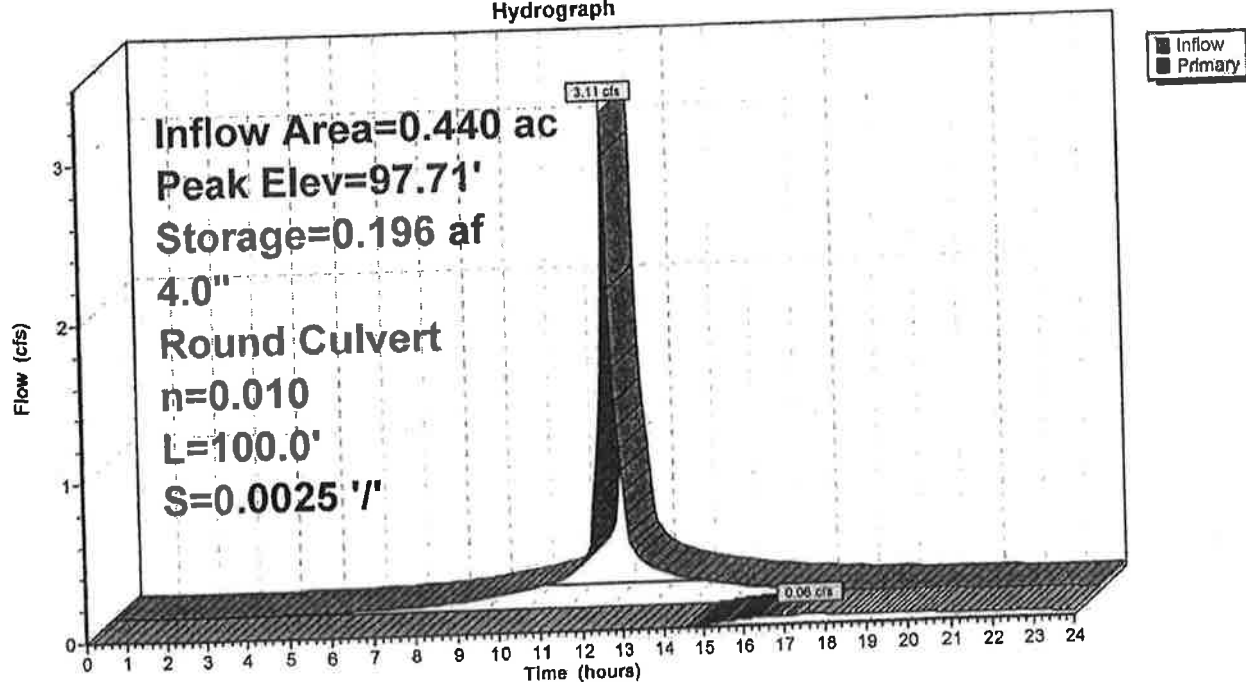
Volume	Invert	Avail.Storage	Storage Description
#1	95.79'	0.219 af	Cultec R-330XLHD @ 58.00' L x 22 Effective Size= 47.8"W x 30.0"H => 7.45 sf x 58.00'L = 432.2 cf Overall Size= 52.0"W x 30.5"H x 8.50'L with 1.50' Overlap Row Length Adjustment= +1.50' x 7.45 sf x 1 rows

Device	Routing	Invert	Outlet Devices
#1	Primary	97.50'	4.0" Round Culvert L= 100.0' Ke= 0.200 Inlet / Outlet Invert= 97.50' / 97.25' S= 0.0025 '/ Cc= 0.900 n= 0.010 PVC, smooth interior, Flow Area= 0.09 sf

Primary OutFlow Max=0.06 cfs @ 17.61 hrs HW=97.71' (Free Discharge)
 1=Culvert (Barrel Controls 0.06 cfs @ 1.43 fps)

Pond 4P: (new Pond)

Hydrograph



Dog Park Lords Highway East

Prepared by Microsoft

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Printed 11/15/2017

Page 1

Pipe Listing (selected nodes)

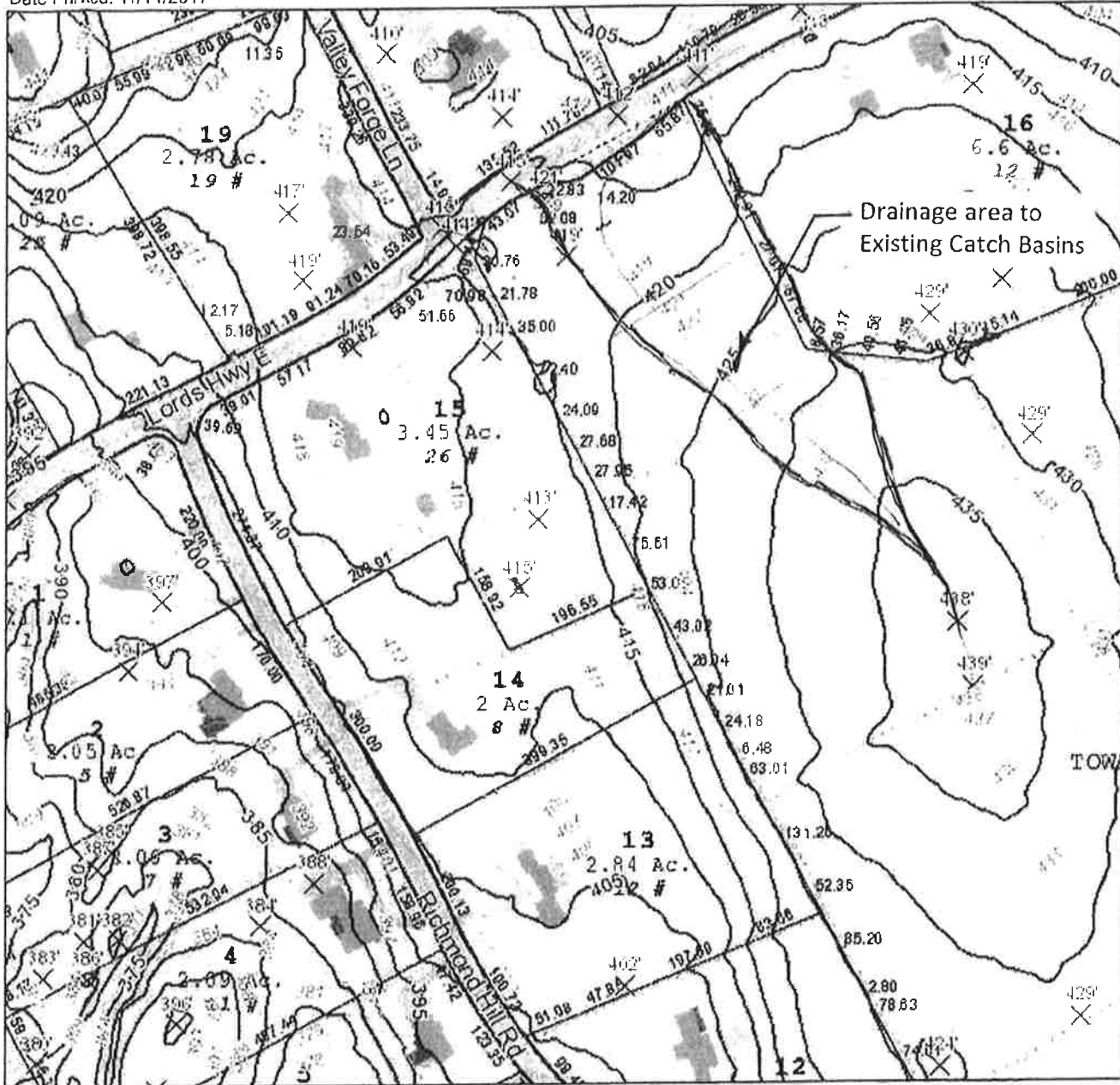
Line#	Node Number	In-Invert (feet)	Out-Invert (feet)	Length (feet)	Slope (ft/ft)	n	Diam/Width (inches)	Height (inches)	Inside-Fill (inches)
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Town of Weston

Geographic Information System (GIS)



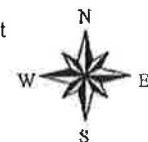
Date Printed: 11/14/2017



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Weston and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 200 feet



APPENDIX "C"

APPROVAL LETTER

From

WESTPORT WESTON HEALTH DEPT.



**Westport Weston
Health District**

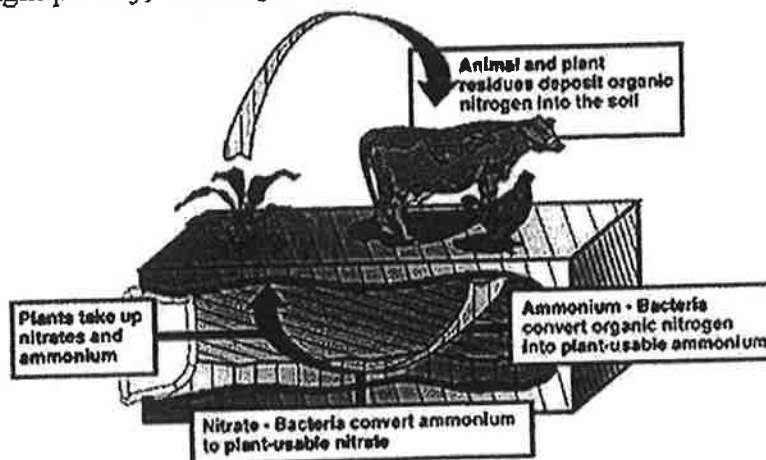
April 12, 2017

Mark Harper, Animal Control Officer
Town of Weston
Weston Town Hall
Weston, Ct. 06883

Dear Mr. Harper:

In response to your telephone inquiry this morning regarding concerns about dog urine from the proposed dog park, I researched the available literature and drew upon the experience of my Director of Health colleagues across the state to evaluate the potential threat from Weston's proposed dog park.

The concern with urine is with the nitrogen it contains. Nitrogen tends to disperse through more diverse pathways in the urban setting and somewhat more rapidly in the soil of a suburban and/or rural one such as the proposed park. It has been estimated that a dog produces about 20 ml of urine for each pound of body weight per day, relieving themselves 3 to 5 times per day. Clearly, a smaller dog will produce less urine than a large one. It is impossible to try and calculate the added nitrogen loading to the environment from the proposed dog park without knowing how many dogs will be visiting, what



their body weights might be, etc. But keep in mind that all added nitrogen becomes part of the natural nitrogen cycle and that a good portion is taken up by plant roots to grow, develop and produce seed. Areas with trees and other such vegetation that have deep roots will utilize more of the nitrogen before some "escapes" deep into the soil and can impact water quality. Nitrogen movement through the environment is a complex matter. It undergoes many complex chemical and biological changes and gets diluted with rain water before it impacts groundwater quality.

It is my opinion, that the added nitrogen from dog urine at the proposed park, a 3 to 4 acre fenced area surrounded by a large area of natural vegetation, would be diminutive with no off site impact.

A few things to consider:

An average person produces about 1500 ml (or about 1.5 liters) of urine a day. An average dog weighing 30 lbs would produce about 600 ml of urine a day. For the sake of our discussion, let



us assume that the average person above urinates exclusively at home and that the average dog above urinates exclusively at the dog park, every day. We also need to assume the natural forces of nitrogen dispersal and plant up take are equal at both locations. Trying not to make this too complicated, but I would think that in the average household, there are more people that produce urine than there

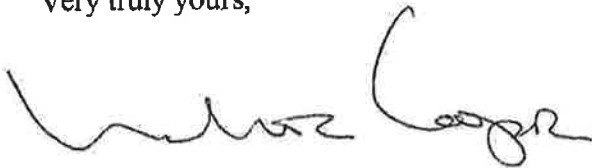
are pets. The experience of Directors of Health across the state, in areas of intensive development on small lot sizes (1/2 to 1 acre in size), served by private on-site well and septic systems, if such nitrogen loading were to be problem, the wells should be loaded with nitrogen at unacceptable levels. They are not. Keep in mind the modern regulatory separation between a

private well and septic system is 75 feet. There are many older wells that are as close as 50 feet from septic systems without excessive nitrogen levels. Additionally, for those pet owners who do not go to dog parks, the pets generally urinate in their own (or neighbors yard), without the nitrate showing up in well water.

Can nitrogen be a problem generally in the environment and water? Absolutely. In urban areas with little natural soil and networks of paved streets with storm drains, pet waste is getting into storm water systems and impacting waterways. Improper well construction can be a factor with whatever is applied to lawns effecting well water quality and there are areas in the country where the soils are not effective in soil and/or plant attenuation of nutrients. Numerous studies have shown that lawn fertilizers can be a major contributor of nitrogen and phosphorous to surface waters. Consider that a typical bag of 16-4-8 lawn fertilizer, something you can buy just about anywhere, contains 8 pounds of nitrogen, 2 pounds of phosphorous and 4 pounds of potassium. How many bags of this stuff gets spread out on the lawns of America each Spring? But again, we do not find excessive nitrogen or phosphorous levels in properly constructed wells, from any source.

Should you have any additional questions regarding this matter, please feel free to contact me.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Mark A.R. Cooper', with a stylized, cursive script.

Mark A.R. Cooper, Director of Health
Westport Weston Health District

C: John Conte P.E., Town Engineer

Welcome To Pet Waste Eliminator!



Call Today
1-800-790-8896

\$0.00

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Plastic Pet Waste Eliminator Station



Keeps Park and Trails free from pet waste.



Plastic Pet Waste Eliminator Station

Durable and completely rust proof!

Item SKU#: E2

As low as

- Holds 600 of
- All-Weather
- Budget friend

k and
To Ship

Quantity:

Total:

Save with

Quantity		
1	\$175.00	
4	\$149.00	15%
10	\$129.00	27%

Product Description

5 Year GUARANTEE! The Plastic Money-saving Pet Waste Stations will endure all weather conditions for 5 years! No more dog poop laying around waiting for maintenance to clean it up! Keep you property clean by strategically placing the stations in high dog walking traffic areas. Encourages dog owners to keep the property clean. Durable dispenser box holds up to 600 dog waste bags allowing for fewer refills!

Product Details

200 Pet Waste Bags: 600 capacity
1 All-Weather Dispenser Box
10 Gallon Plastic Trash Can with Lid
1 Aluminum sign: 12" w x 12" h
50 odor trapping liners
1 Sign Post 8'h, hardware included
Lock and Key for protection
Same Day Shipping... Gets to you Fast!

Customers who bought this Plastic Pet Waste Eliminator Station also bought:



**Westport Weston
Health District**

February 15, 2017

John Conte P.E., Town Engineer
Mark Harper, Animal Control Officer
Town of Weston
Weston Town Hall
Weston, Ct. 06883

A review of the construction plans, project statement, and Dog Park Rules has been completed by the Westport Weston Health District. The WWHD has no objections to the proposal.

There are no State of Connecticut and/or local public health codes governing the siting and/or construction of dog parks. It is important to note that one of the Dog Park Rules (#6 from the top) requires dog owners to "clean up after your dog anywhere in the park and dispose of waste properly utilizing appropriated waste receptacle". This rule is appropriate and should be strictly enforced. The town should also ensure that the waste receptacles should have covers and be emptied daily.

Should you have any questions regarding this review, please feel free to contact me.

Very truly yours,

Mark A.R. Cooper, Director of Health
Westport Weston Health District



**Westport Weston
Health District**

March 24, 2017

Mark Harper, Animal Control Officer
Town of Weston
Weston Town Hall
Weston, Ct. 06883

Dear Mr. Harper:

Thank you for contacting me with your questions regarding the frequency which may be needed to empty the covered dog waste receptacles at the proposed Weston dog park. The Health District agrees that with the expected normal usage of the park, a regularly scheduled frequency of pick up on a Monday, Wednesday, and Friday, may be adequate.

In the event of some special event, other heavy usage, or hot temperature, additional pick up and disposal may be needed.

Let us allow common sense to rule - if the covered waste receptacles are full and/or are becoming odorous, empty them. In a slow period of little usage with cool temperatures, once a week or longer may be sufficient.

Should you have any additional questions regarding this matter, please feel free to contact me.

Very truly yours,

Mark A.R. Cooper, Director of Health
Westport Weston Health District

c: John Conte P.E., Town Engineer ✓

APPENDIX “D”

COST ESTIMATES



January 18, 2018

Weston Board of Selectmen
 Attention: Christopher Spaulding, First Selectman
 Jonathan Luiz, Town Administrator

Re: Preliminary Costs Estimates
 Dog Park
 New Access off Lords Highway East

Chris, Jonathan:

I have received preliminary costs from contractors to construct an access off of Lords Highway East for the proposed Dog Park. Stated below is a breakdown of different scenarios that can be incorporated to complete the access drive.

1. Final numbers of the Davis Hill access as of August 1, 2017

Town of Weston	Dog Park Supporters
\$35,046.00	\$83,374.80
Total Cost \$118,420.80 (Includes 20% Contingency)	

Final numbers of the Lords Highway East access as of January 1, 2018

2. If we use town asphalt millings located at the transfer station and truck excess fill to the transfer station.
 - a. Total Cost \$157,454.00 (Includes 20% Contingency)
 - b. If we add cost of a 3 Inch and 2 Inch electrical conduits for electrical and telephone
 Total Cost \$188,654.00 (Includes 20% Contingency)
 $\$157,454.00 - \$118,420.80 = \$39,033.20$ Difference of Costs compared to the Davis Hill Access.

a. Town's Participation \$74,079.20	Dog Park's Participation \$83,374.80
b. Town's Participation \$105,279.20	Dog Park's Participation \$83,374.80

3. If we cannot use town asphalt millings with the contractor purchasing the millings and installing 3" and 2" electrical conduits.
Total Cost \$201,854.00 (Includes 20% Contingency).
Town's Participation \$118,479.20 Dog Park's Participation \$83,374.80
4. If we cannot use town asphalt millings and do not install 3" and 2" conduits.
Total Cost 170,654.00 (Includes 20% Contingency).
Town's Participation \$87,279.20 Dog Park's Participation \$83,374.80

In each scenario excess fill is to be truck to the Weston Transfer Station to save costs.
All prices include a double gate entry. All costs include fencing.

If the Dog Park Inc. were to pay only for the parking area, turn around, walkway and fencing the cost would be \$79,094.00. Dog Park Inc. has agreed to pay the original participation for those items totaling \$83,374.80. Dog Park Inc. is contributing \$4,280.80 more for the parking area and fencing under the new application.



John Conte P.E.



Parks and Recreation
Director

12-28-17

TO:

John Conte

FM:

David Ungar

Re:

Proposed Weston Dog Park expenses

The projected expense for the maintenance of the dog park is as follows.

Manpower estimate.

One half to one hour per day for;

Trash removal from dog park group provided waste bag receptacles.

Replacing waste bags in containers provided by the town.

Walk around check of the park.

This can be covered in Town daily work routine.

Supplies estimate.

Bags for the provided dog waste receptacles.

Replacement pet waste pickup bags based upon forty per day, five days per week for 35 weeks.

\$240.00 (for 8,000 bags) from Pet Waste eliminator.com

Trash cans liner bags for the large trash receptacles.

Two per day, five days per week for 35 weeks.

350 bags @ \$15.00 per bag of 50

\$105.00

Total

\$345.00

APPENDIX "E"

TRAFFIC COUNTS



A sign of the future.

Speed Summary Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:32:06 AM

Site: Londondale, CT

Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Overall Summary

Total Days of Data: 2

Speed Limit: 25

Average Speed: 19.11

50th Percentile Speed: 19.55

85th Percentile Speed: 22.72

Pace Speed Range: 20 to 30

Minimum Speed: 5

Maximum Speed: 46

Display Status: Did Not Display Vehicle Speeds

Average Volume per Day: 121.5

Total Volume: 243



Volume By Speed Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:34:39 AM

Speed Bins: Size 5, Range 1 to 100

Time View: By Hour (Avg Volumes)

Site: Lord's east, EB

Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Hour	Spd Limit	1 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 to 75	76 to 80	81 to 85	86 to 90	91 to 95	96 to 100	Avg Spd	Avg Num Vehicles
0:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	25	0	1	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	28	3
6:00	25	0	1	0	2	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	26.5	11
7:00	25	1	0	1	2	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	21.5	8
8:00	25	0	0	1	2	1	5	4	1	0	1	0	0	0	0	0	0	0	0	0	0	28	14
9:00	25	0	0	0	1	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	27.5	6
10:00	25	0	1	1	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	24	6
11:00	25	0	1	1	2	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	21	9
12:00	25	0	0	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	23.5	5
13:00	25	1	1	1	2	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	21	10
14:00	25	0	1	2	1	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	23	10
15:00	25	0	1	2	2	3	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	23.5	12
16:00	25	1	0	1	1	1	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	24.5	7
17:00	25	0	1	1	2	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.5	8
18:00	25	0	0	1	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	26	8
19:00	25	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	4
20:00	25	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	27.5	1
21:00	25	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	1
22:00	25	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	3
23:00	25	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19.7	2
Avg # Vehicles		0	0	1	1	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	19.1	5



A sign of the future.

Volume By Speed Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:34:45 AM

Speed Bins: Size 5, Range 1 to 100

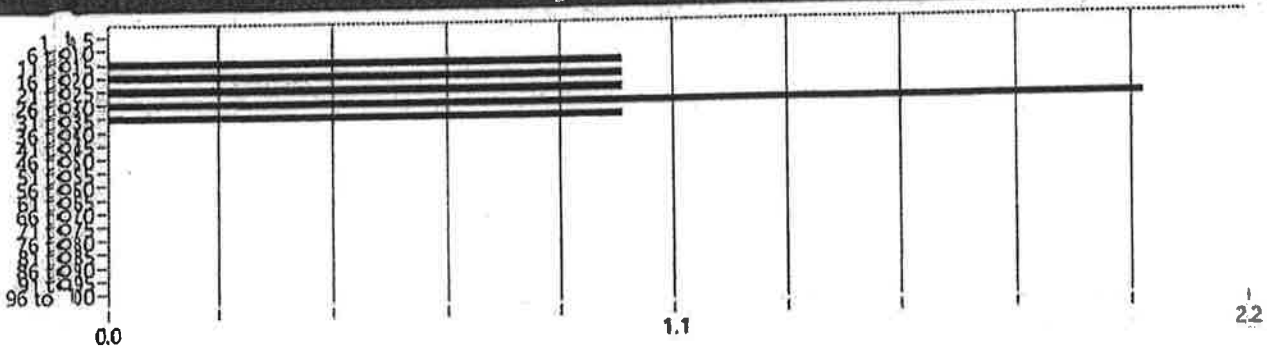
Time View: By Hour (Avg Volumes)

Site: Lord's east, EB

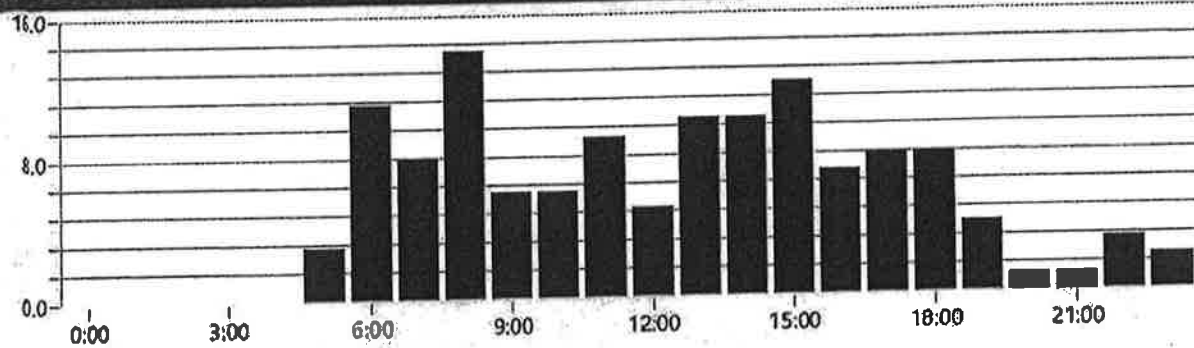
Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Average Vehicles by Speed Bin



Average Volume by Hour





A sign of the future.

Volume By Time Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:32:56 AM

Speed Bins: Size 0, Range 1 to 100

Time View: By Day of Week (Avg Volumes)

Site: Lord's east, EB

Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Day of Week	0:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00	18:00	19:00	20:00	21:00	22:00	23:00	Total Num Vehicles
Wednesday	0	0	0	0	0	3	11	8	16	2	5	8	3	8	10	12	7	5	8	4	1	0	0	1	112
Thursday	0	0	0	0	0	3	10	8	12	9	7	10	7	12	9	11	6	10	7	3	1	1	3	0	129
Avg #	0	0	0	0	0	3	11	8	14	6	6	9	5	10	10	12	7	8	8	4	1	1	2	1	121



A sign of the future.

Volume By Time Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:32:59 AM

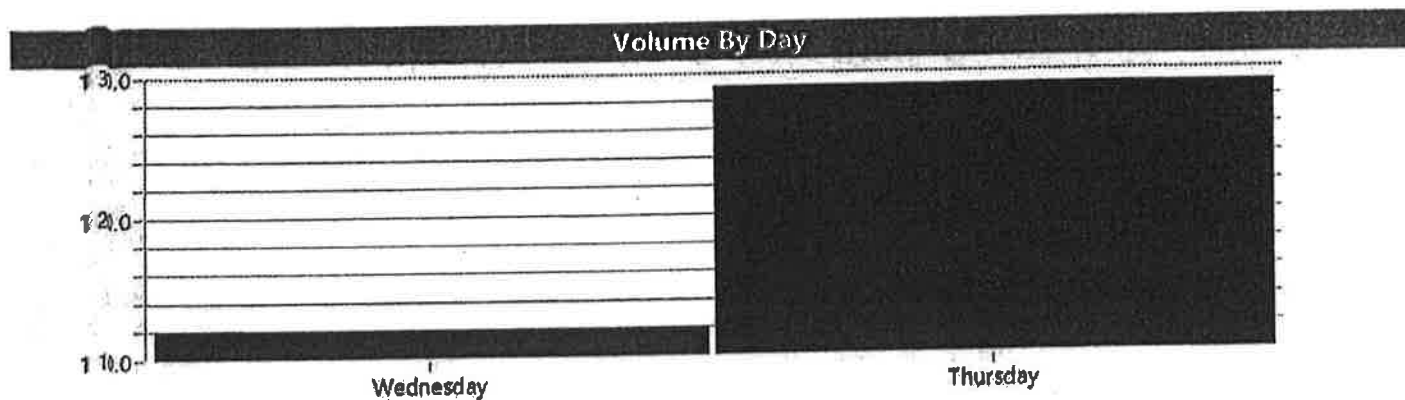
Speed Bins: Size 0, Range 1 to 100

Time View: By Day of Week (Avg Volumes)

Site: Lord's east, EB

Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017



ALL TRAFFIC
SOLUTIONS



A sign of the future.

Speed Summary Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:29:07 AM

Site: Lord's east west bound, WB

Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Overall Summary

Total Days of Data: 2

Speed Limit: 25

Average Speed: 21.00

50th Percentile Speed: 20.96

85th Percentile Speed: 25.79

Pace Speed Range: 23 to 33

Minimum Speed: 5

Maximum Speed: 46

Display Status: Did Not Display Vehicle Speeds

Average Volume per Day: 134.5

Total Volume: 269


A sign of the future.

Volume By Speed Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:26:46 AM

Speed Bins: Size 5, Range 1 to 100

Time View: By Hour (Avg Volumes)

Site: Lord's east west bound, WB

Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Hour	Spd Limit	1 to 5	6 to 10	11 to 15	16 to 20	21 to 25	26 to 30	31 to 35	36 to 40	41 to 45	46 to 50	51 to 55	56 to 60	61 to 65	66 to 70	71 to 75	76 to 80	81 to 85	86 to 90	91 to 95	96 to 100	Avg Spd	Avg Num Vehicles
0:00	25	0	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	18	3
1:00	25	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	2
2:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00	25	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:00	25	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	2
7:00	25	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	1
8:00	25	0	2	1	2	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	21.5	9
9:00	25	0	2	2	1	5	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	23.5	15
10:00	25	2	0	1	1	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	22.5	8
11:00	25	0	1	1	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	26.5	6
12:00	25	2	1	1	2	2	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	22	11
13:00	25	0	0	1	1	1	3	2	0	1	1	0	0	0	0	0	0	0	0	0	0	30.5	8
14:00	25	0	1	2	1	2	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	26.5	15
15:00	25	1	0	1	3	2	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	25	13
16:00	25	0	1	0	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	27	6
17:00	25	0	1	1	2	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	24	10
18:00	25	0	0	1	1	2	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	28.5	8
19:00	25	0	1	0	0	1	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	30.5	9
20:00	25	0	1	0	0	0	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	32	5
21:00	25	0	0	1	0	0	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	29	6
22:00	25	0	0	0	0	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	31.5	4
23:00	25	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25.5	2
Avg # Vehicles		0	1	1	1	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	21	6



A sign of the future.

Volume By Speed Report

Generated by Rob Curcio from Town of Weston (CT)

on Dec 1, 2017 at 12:26:52 AM

Speed Bins: Size 5, Range 1 to 100

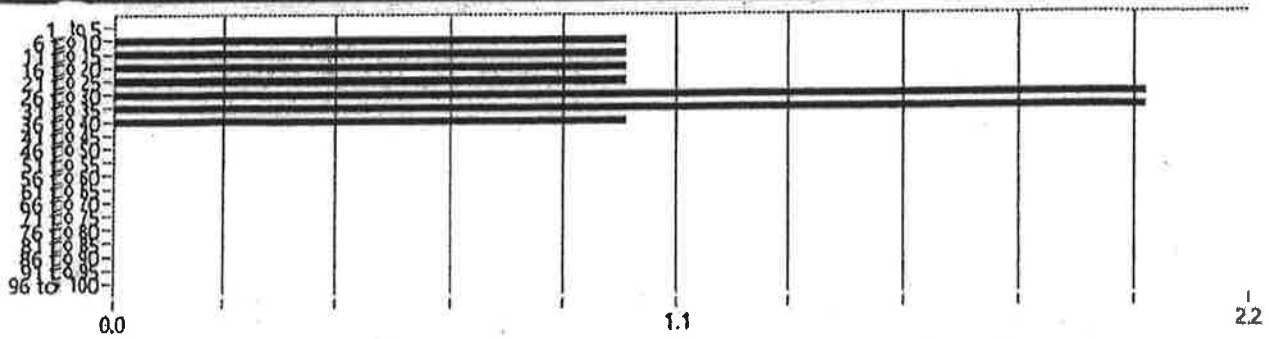
Time View: By Hour (Avg Volumes)

Site: Lord's east west bound, WB

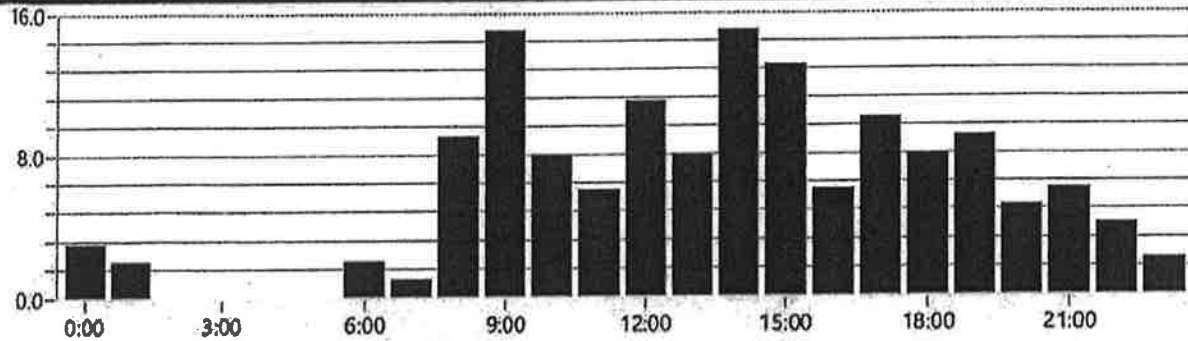
Time of Day: 0:00 to 23:59

Dates: 11/28/2017 to 11/30/2017

Average Vehicles by Speed Bin



Average Volume by Hour



APPENDIX “F”

HIGHWAY CAPACITY ANALYSIS

John Conte

From: Robert Brinton <rbrinton@westcog.org>
Sent: Thursday, December 14, 2017 5:32 PM
To: John Conte
Subject: 18 Foot Width Lords Highway East Capacity Analysis Using HCS Software (Highway Capacity Manual Methods)
Attachments: 2017 No Build LOS Lords Highway East 18 ft.pdf; 2022 Build LOS Lords Highway East 18 ft.pdf; Dog Park Driveway LOS 2022 Build 18 ft Lords Hwy East.pdf

Hi John,

The attached outputs are based on the 11/28/17 to 11/30/17 traffic count data you provided and same trip generation rate that was used for the proposed dog park driveway off of Davis Hill Road (3 trips in and out from each major road direction in the peak traffic hour (2:00 to 3:00 pm). A 1% per year background traffic growth rate was assumed between the traffic count data in 2017 and an assumed 2022 build year.

The highway capacity analysis indicates that the percent free flow speed (PFFS) would decrease from 91.2% in the 2017 no build scenario to 91.0% in the 2022 build scenario. The Level of Service (LOS) of Lords Highway East is B and the volume to capacity ratio (v/c) is 0.53 in both scenarios.

The intersection capacity analysis indicates that the proposed dog park driveway would operate at a LOS A in the peak traffic hour.

Please let me know if you have any questions or need any additional information.

Bob

ROBERT BRINTON

Project Manager, Western Connecticut Council of Governments
tel/fax 475-323-2072 · rbrinton@westcog.org

web westcog.org · post 1 Riverside Road, Sandy Hook, CT 06482

John Conte

From: Robert Brinton <rbrinton@westcog.org>
Sent: Monday, December 18, 2017 3:56 PM
To: John Conte
Subject: RE: 18 Foot Width Lords Highway East Capacity Analysis Using HCS Software (Highway Capacity Manual Methods)

Hi John,

ATS is Average Travel Speed
PTSF is Percent Time Spent Following (traveling behind a slower vehicle)
PFFS is Percent Free Flow Speed

HCM uses ATS and PTSF to determine LOS of Class I 2-lane highways, PTSF for LOS of Class II 2-lane highways, and PFFS for LOS of Class III 2-lane highways. Class I highways are arterials with relatively high speed and traffic volumes, while Class III highways are local roads with relatively low speeds and travel volumes. Both Lords Highway East and Davis Hill Road are considered Class III highways, so PFFS was the only capacity factor I looked at. The program does compute the other capacity measurements; they just are not used to determine LOS.

Directional Capacity refers to the fact that the HCM only computes capacity in one direction of travel at a time. For this analysis, the westbound direction on Lords Highway East was analyzed as the most conservative, since the volume was higher than eastbound. I just ran it for the eastbound direction, and the results are exactly the same as for westbound. The 6-vehicle per hour difference is insignificant.

Hope this is helpful.

Bob

From: John Conte [mailto:JConte@westonct.gov]
Sent: Monday, December 18, 2017 1:58 PM
To: Robert Brinton <rbrinton@westcog.org>
Subject: RE: 18 Foot Width Lords Highway East Capacity Analysis Using HCS Software (Highway Capacity Manual Methods)

Hi Bob
When you have a chance can you clarify the definition of Capacity from ATS, Capacity from PTSF and Directional Capacity
Thanks
John

From: Robert Brinton [mailto:rbrinton@westcog.org]
Sent: Monday, December 18, 2017 10:59 AM
To: John Conte
Subject: RE: 18 Foot Width Lords Highway East Capacity Analysis Using HCS Software (Highway Capacity Manual Methods)

Hi John,

Glad to help. Let me know if you need anything else.

Phone:
E-Mail:

Fax:

Directional Two-Lane Highway Segment Analysis

Analyst
Agency/Co. WestCOG
Date Performed 12/14/2017
Analysis Time Period Peak Hour 2 to 3 pm
Highway Lords Highway East
From/To Richmond Hill/Davis Hill
Jurisdiction Weston
Analysis Year 2017
Description Existing LOS 18 ft Rd

Input Data

Highway class	Class 3	Peak hour factor, PHF	0.88
Shoulder width	0.0 ft	% Trucks and buses	1 %
Lane width	9.0 ft	% Trucks crawling	0.0 %
Segment length	0.3 mi	Truck crawl speed	0.0 mi/hr
Terrain type	Specific Grade	% Recreational vehicles	0 %
Grade: Length	0.25 mi	% No-passing zones	100 %
Up/down	3.0 %	Access point density	20 /mi

Analysis direction volume, Vd 15 veh/h
Opposing direction volume, Vo 10 veh/h

Average Travel Speed

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	2.6	1.9
PCE for RVs, ER	1.1	1.0
Heavy-vehicle adj. factor, (note-5) fHV	0.984	0.991
Grade adj. factor, (note-1) fg	0.78	1.00
Directional flow rate, (note-2) vi	22 pc/h	11 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, (note-3) S FM	30	mi/h
Observed total demand, (note-3) V	36	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	-	mi/h
Adj. for lane and shoulder width, (note-3) fLS	-	mi/h
Adj. for access point density, (note-3) fA	-	mi/h

Free-flow speed, FFSd 30.3 mi/h

Adjustment for no-passing zones, fnp 2.4 mi/h

Average travel speed, ATSD 27.6 mi/h

Percent Free Flow Speed, PFFS 91.2 %

Percent Time-Spent-Following

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.0	1.1
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	0.999
Grade adjustment factor, (note-1) fg	1.00	1.00
Directional flow rate, (note-2) vi	17 pc/h	11 pc/h
Base percent time-spent-following, (note-4) BPTSFD	2.2 %	
Adjustment for no-passing zones, fnp	53.5	
Percent time-spent-following, PTSFD	34.7 %	

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.53	
Peak 15-min vehicle-miles of travel, VMT15	1	veh-mi
Peak-hour vehicle-miles of travel, VMT60	5	veh-mi
Peak 15-min total travel time, TT15	0.0	veh-h
Capacity from ATS, CdATS	1698	veh/h
Capacity from PTSF, CdPTSF	1564	veh/h
Directional Capacity	1698	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.3	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSD (from above)	27.6	mi/h
Percent time-spent-following, PTSFD (from above)	34.7	
Level of service, LOSd (from above)	B	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSp1	-	
Percent free flow speed including passing lane, PFFSp1	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55.
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	17.0
Effective width of outside lane, We	17.33
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	2.65
Bicycle LOS	C

Notes:

1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.
2. If v_i (v_d or v_o) $\geq 1,700$ pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for $v > 200$ veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

HCS7: Two-Lane Highways Release 7.2

Phone:
E-Mail:

Fax:

Directional Two-Lane Highway Segment Analysis

Analyst
Agency/Co. WestCOG
Date Performed 12/14/2017
Analysis Time Period Peak Hour 2 to 3 pm
Highway Lords Highway East
From/To Richmond Hill/Davis Hill
Jurisdiction Weston
Analysis Year 2022
Description LOS 18 ft Rd w/ Dog Park Drive

Input Data

Highway class	Class 3	Peak hour factor, PHF	0.88	
Shoulder width	0.0 ft	% Trucks and buses	1	%
Lane width	9.0 ft	% Trucks crawling	0.0	%
Segment length	0.3 mi	Truck crawl speed	0.0	mi/hr
Terrain type	Specific Grade	% Recreational vehicles	0	%
Grade: Length	0.25 mi	% No-passing zones	100	%
Up/down	3.0 %	Access point density	20	/mi

Analysis direction volume, Vd 19 veh/h
Opposing direction volume, Vo 13 veh/h

Average Travel Speed

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	2.6	1.9
PCE for RVs, ER	1.1	1.0
Heavy-vehicle adj. factor, (note-5) fHV	0.984	0.991
Grade adj. factor, (note-1) fg	0.78	1.00
Directional flow rate, (note-2) vi	28 pc/h	15 pc/h

Free-Flow Speed from Field Measurement:

Field measured speed, (note-3) S FM	30	mi/h
Observed total demand, (note-3) V	36	veh/h
Estimated Free-Flow Speed:		
Base free-flow speed, (note-3) BFFS	-	mi/h
Adj. for lane and shoulder width, (note-3) fLS	-	mi/h
Adj. for access point density, (note-3) fA	-	mi/h

Free-flow speed, FFSd 30.3 mi/h

Adjustment for no-passing zones, fnp 2.4 mi/h

Average travel speed, ATSD 27.6 mi/h

Percent Free Flow Speed, PFFS 91.0 %

Percent Time-Spent-Following

Direction	Analysis (d)	Opposing (o)
PCE for trucks, ET	1.0	1.1
PCE for RVs, ER	1.0	1.0
Heavy-vehicle adjustment factor, fHV	1.000	0.999
Grade adjustment factor, (note-1) fg	1.00	1.00
Directional flow rate, (note-2) vi	22 pc/h	15 pc/h
Base percent time-spent-following, (note-4) BPTSFd	2.8 %	
Adjustment for no-passing zones, fnp	53.4	
Percent time-spent-following, PTSFd	34.6 %	

Level of Service and Other Performance Measures

Level of service, LOS	B	
Volume to capacity ratio, v/c	0.53	
Peak 15-min vehicle-miles of travel, VMT15	2	veh-mi
Peak-hour vehicle-miles of travel, VMT60	6	veh-mi
Peak 15-min total travel time, TT15	0.1	veh-h
Capacity from ATS, CdATS	1698	veh/h
Capacity from PTSF, CdPTSF	1564	veh/h
Directional Capacity	1698	veh/h

Passing Lane Analysis

Total length of analysis segment, Lt	0.3	mi
Length of two-lane highway upstream of the passing lane, Lu	-	mi
Length of passing lane including tapers, Lpl	-	mi
Average travel speed, ATSD (from above)	27.6	mi/h
Percent time-spent-following, PTSFd (from above)	34.6	
Level of service, LOSd (from above)	B	

Average Travel Speed with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for average travel speed, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for average travel speed, Ld	-	mi
Adj. factor for the effect of passing lane on average speed, fpl	-	
Average travel speed including passing lane, ATSp1	-	
Percent free flow speed including passing lane, PFFSp1	0.0	%

Percent Time-Spent-Following with Passing Lane

Downstream length of two-lane highway within effective length of passing lane for percent time-spent-following, Lde	-	mi
Length of two-lane highway downstream of effective length of the passing lane for percent time-spent-following, Ld	-	mi
Adj. factor for the effect of passing lane on percent time-spent-following, fpl	-	
Percent time-spent-following including passing lane, PTSFpl	-	%

Level of Service and Other Performance Measures with Passing Lane

Level of service including passing lane, LOSpl	E	
Peak 15-min total travel time, TT15	-	veh-h

Bicycle Level of Service

Posted speed limit, Sp	55
Percent of segment with occupied on-highway parking	0
Pavement rating, P	3
Flow rate in outside lane, vOL	21.6
Effective width of outside lane, We	17.15
Effective speed factor, St	4.79
Bicycle LOS Score, BLOS	2.81
Bicycle LOS	C

Notes:

1. Note that the adjustment factor for level terrain is 1.00, as level terrain is one of the base conditions. For the purpose of grade adjustment, specific downgrade segments are treated as level terrain.
2. If v_i (vd or vo) $\geq 1,700$ pc/h, terminate analysis-the LOS is F.
3. For the analysis direction only and for $v > 200$ veh/h.
4. For the analysis direction only.
5. Use alternative Exhibit 15-14 if some trucks operate at crawl speeds on a specific downgrade.

HCS7 Two-Way Stop-Control Report

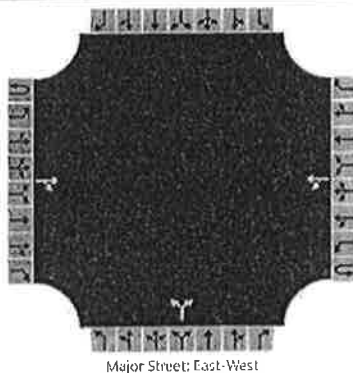
General Information

Analyst	
Agency/Co	WestCOG
Date Performed	12/14/2017
Analysis Year	2022
Time Analyzed	PM Peak Hour 2 - 3 pm
Intersection Orientation	East-West
Project Description	18 ft Lords Highway East - Build

Site Information

Intersection	Dog Park Driveway
Jurisdiction	Weston
East/West Street	Lords Highway East
North/South Street	Dog Park Driveway
Peak Hour Factor	0.92
Analysis Time Period (hrs)	1.00

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume: V (veh/h)			10	3		3	16			3		3				
Percent Heavy Vehicles (%)						1				1		1				
Proportion Time Blocked																
Percent Grade (%)										-3						
Right Turn Channelized		No				No				No				No		
Median Type/Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.11				5.81		5.91				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.21				3.51		3.31				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						3				6						
Capacity, c (veh/h)						1610				1026						
v/c Ratio						0.00				0.01						
95% Queue Length, Q ₉₅ (veh)						0.0				0.0						
Control Delay (s/veh)						7.2				8.5						
Level of Service, LOS						A				A						
Approach Delay (s/veh)					1.1				8.5							
Approach LOS									A							

Free Flow Speed of a Vehicle

By: Haseeb Jamal / On: Apr 24, 2017 / DEFINITION , FACTORS AFFECTING

Definition

Free-flow-speed of a vehicle is defined as: The desired speed of drivers in low volume conditions and in the absence of traffic control devices. The mean speed of passenger cars that can be maintained in low to moderate flow rates on a uniform freeway segment under prevailing roadway and traffic conditions.

Factors affecting free flow speed

Factors affecting free-flow speed of a vehicle are:

Speed Test Traffic Report Free Speed

1. Width
2. Lateral clearance
3. Number of lanes
4. Interchange density
5. Geometric design
6. Weather (The amount of reduction in free-flow speed is directly related to the severity of the weather event.)
7. Visibility

Traffic Report Free Traffic Speed Flow

Based on a study of two-lane rural highways, Lamm, Choueiri, and Mallaender found that drivers do not adjust their speeds very much under light rain or wet pavement, but they do reduce speeds when visibility becomes obstructed, such as during a heavy rain.

PERCENT TIME-SPENT-FOLLOWING

The Base Percent Time-Spent-Following (BPTSF_d) is estimated from HCM Equation 15-10, where *a* and *b* are constants drawn from HCM Exhibit 15-20. The Base Percent Time-Spent Following (BPTSF_d) is then adjusted using the No-Passing Zone Adjustment Factor (*f_{np,PTSF}*) from HCM Exhibit 15-21 to obtain the Percent Time-Spent-Following (PTSF_d) from HCM Equation 15-9.

PERCENT OF FREE-FLOW SPEED

The Percent of Free-Flow Speed (PFFS) is estimated from HCM Equation 15-11 and is included only in the analysis of Class III two-lane highways.

AUTOMOBILE LEVEL OF SERVICE AND PERFORMANCE MEASURES

In this section the calculated results of the Automobile analysis are displayed.

The Automobile Level of Service (LOS) is determined separately for Class I, Class II and Class III highways. Automobile Level of Service criteria for Two-Lane Highways from HCM Exhibit 15-3 for Class I, Class II and Class III highways respectively:

Class I:

	ATS (mi/h)	PTSF (%)
LOS A	>55	≤35
LOS B	>50-55	>35-50
LOS C	>45-50	>50-65
LOS D	>40-45	>65-80
LOS E	≤40	>80

LOS F exists whenever the demand flow in one or both directions exceeds the capacity of the segment.

Class II:

	PTSF (%)
LOS A	≤40
LOS B	>40-55
LOS C	>55-70
LOS D	>70-85
LOS E	>85

LOS F exists whenever the demand flow in one or both directions exceeds the capacity of the segment.

Class III:

	PFFS (%)
LOS A	>91.7
LOS B	>83.3-91.7
LOS C	>75.0-83.3
LOS D	>66.7-75.0
LOS E	≤66.7

LOS F exists whenever the demand flow in one or both directions exceeds the capacity of the segment.

Next, the capacity is determined under the prevailing conditions. HCM Equation 15-12 or HCM Equation 15-13 (or both) are applied and capacity is computed.

BICYCLE MODE

The user codes the Posted speed limit, Percent of segment with occupied on-highway parking, and Pavement rating for the highway being analyzed. The Flow rate in the outside lane is then calculated using HCM Equation 15-24. The Effective width of the outside lane is calculated using either HCM Equation 15-25, 15-26, or 15-27 depending on the paved shoulder width. Then the Effective speed factor is calculated using HCM Equation 15-30.

APPENDIX "G"

AGREEMENT LETTER

TOWN of WESTON
WESTON DOG PARK INC.

A G R E E M E N T

Agreement made this ____ day of _____, 2018 by and between the **TOWN OF WESTON** (hereinafter the "Town") a municipal corporation in the State of Connecticut with offices at 52 Norfield Road, Weston, Connecticut 06883 and **WESTON DOG PARK, INC.** (hereinafter "WDP") a Connecticut corporation qualified under Section 501(c)(3) of the Internal Revenue Code with offices at 7 Roscrea Place, Weston, Connecticut 06883.

WHEREAS, the Town is considering opening and operating a municipal dog park of at least two (2) acres in size to be located on a thirty six (36) acre Town of Weston property identified on the Weston Tax Assessor's Map 17, Block 1, Lot 17, with access by Lord's Highway Extension, Weston, Connecticut on the terms and conditions herein set out; and

WHEREAS, WDP would like the Town to open and operate a dog park and is willing to assist by raising funds to donate to the Town for the sole purpose of paying for a portion of the initial construction costs of the park on the terms and conditions hereinafter set forth.

NOW THEREFORE, for One Dollar (\$1.00) and other valuable consideration the receipt and sufficiency of which is acknowledged, the parties hereto agree as follows:

1. The Town will identify an appropriately sized parcel, consisting of a minimum of two (2) acres, on approximately 36 acres of property owned by the Town commonly referred to as the "Moore Property" on Davis Hill Rd. for the construction of a municipal dog park (the "Dog Park") and will advocate for and seek permitting and approvals (collectively the "Approvals") for same on the terms herein. The final location and design of the Dog Park will be subject to the mutual agreement of the WDP and the Town. Promptly after such agreement on design and location, the Town agrees to commence efforts to obtain the Approvals and to thereafter diligently pursue same.
2. (a) With respect to the Dog Park, WDP will endeavor to privately raise a sum of money equal to the estimated WDP Construction Costs (as hereinafter defined) plus twenty

(20%) percent (the "WDP Commitment") for the purpose of paying, through donations to the Town, for the following improvements all of which will meet Town specifications after consultation with WDP: site preparation work for a parking lot; a gated fence with a double gated dog entry and one emergency vehicle entry to surround the Dog Park; a minimum of two "doggie bag" dispensers; and appropriate signage identifying the Dog Park and the rules for the regulation/operation of same (the "WDP Construction Costs"). In the event the actual cost of the WDP Construction Costs is less than the WDP Commitment, then any balance thereof will be donated to the Town and set aside as a fund for operating the park. The Town agrees to promptly seek estimates from qualified bidders for the WDP Construction Costs in accordance with the Town's usual and customary policies and procedures. Upon obtaining such estimates, copies thereof shall be promptly provided to WDP. The aggregate of the estimates for the WDP Construction Costs (inclusive of a performance bond) shall be used to determine the amount of the WDP Commitment. For the avoidance of doubt, if the cost estimates for the WDP Construction Costs equal \$70,000, then the WDP Commitment is agreed to be \$84,000 ($70,000 + 20\%$). If the actual WDP Construction Costs exceed the WDP Commitment, the Town agrees to pay any excess. The WDP Construction Costs, including any contingency, shall not be less than \$83,374.80. Any and all work to construct the Dog Park will be contracted for by the Town. It is understood and agreed that the WDP's obligations hereunder are contingent on the WDP's prior approval of the location and design of the Dog Park.

(b) Notwithstanding anything to the contrary set forth in Section 2(a) hereinabove, if based on the estimates obtained, the WDP Commitment is determined to exceed \$100,000, then WDP shall have the option to terminate this Agreement upon written notice to the Town. Upon receipt of such notice, this Agreement shall be deemed terminated and neither party shall have any further obligations hereunder.

(c) If despite good faith efforts, WDP has been unable to raise the funds necessary to satisfy the WDP Commitment within one (1) year of the date of referendum approval; then the WDP Commitment shall thereafter be increased to an amount equal to the WDP Construction Costs plus twenty five (25%) percent. In the event, WDP has been unable

to raise the required WDP Commitment funds within two (2) years of the later of the aforesaid dates, then the WDP shall notify the Town of the amount of funds raised and the Town shall thereafter have the right upon written notice to WDP (a) to terminate this Agreement.

3. The Town will pay for and construct a driveway from a public road to the said parking lot and will do the necessary grading for safe access.
4. The Town will be responsible for the operation of the Dog Park, including but not limited to, setting out, after consultation with WDP and other interested parties, the rules and regulations for access and uses of the park. The Dog Park shall be opened year-round except for inclement weather and significant maintenance. The Town agrees to operate the Dog Park for a minimum of seven (7) years from the date of the initial opening provided that the Town shall have the right to close the Dog Park if it is reasonably determined that there is an overriding municipal purpose for which the Dog Park property is required. In such case, the Dog Park shall be permitted to continue in operation until such time as any and all approvals have been obtained by the Town for such municipal purpose. In the event the Dog Park is required to close within seven (7) years of opening, the Town will endeavor, but shall not be obligated, to find another location for the park at the Town's expense, subject to budget/cost considerations and municipal approvals. In the event the property is not used for a specific municipal purpose, but rather is sold to a third party within seven (7) years of opening, the Town agrees that a portion of the net proceeds from the sale may be used to purchase another property for the Dog Park, but the Town shall not be obligated to do so. In the event that another location cannot be found, the Town shall pay to WDP a proportionate refund of the WDP Commitment. (By way of example, if the park closes on the fourth anniversary of the opening of the park, the Town will refund three sevenths of the WDP Commitment.) If WDP is no longer in existence or is no longer a qualified organization under Section 501(c)(3) of the Internal Revenue Code, then such payment shall be made to a qualified 501(c)(3) organization dedicated to animal rights and welfare.

5. The Town's commitments to commence construction of the Dog Park herein are contingent upon WDP providing evidence that it has sufficient monies in hand to meet its obligations as set out in paragraph 2. The Town agrees that any and all funds donated to the Town by WDP shall be held in trust for the sole purpose of the funding the WDP Construction Costs with any excess to be applied to the operation of the Dog Park.

IN WITNESS THEREOF, the parties have executed and sealed this document the day and year first above written.

TOWN OF WESTON

Witness

Witness

By:
Its: First Selectman

WESTON DOG PARK, INC.

Witness

Witness

By:
Its:

STATE OF CONNECTICUT)
)
COUNTY OF FAIRFIELD)

ss: _____

Notary Public
My Commission Expires

SS: _____

Notary Public
My Commission Expires

APPENDIX “H”

DOG PARK RULES

Weston Dog Park Rules

- All Park users use this park at their own risk.
- Hours of operation are from dawn to dusk.
- Owners are responsible for the behavior of their dogs and any injuries or damage caused by their dogs.
- Dogs must have a valid license and be current with their vaccines. Proof of license must be available upon request.
- Dogs must be leashed when entering and exiting the park.
- NO leashes on dogs once INSIDE the fenced in area of the park.
- Choke, Prong, Pinch and Spiked collars are not permitted and must be removed prior to entering the dog park.
- Immediately fill any holes your dog digs.
- Aggressive dogs and/or dogs in heat are prohibited at all times.
- If a dog becomes aggressive during play, dog must be leashed and removed from the park immediately.
- Clean up after your dog anywhere in the park and dispose of waste properly, utilizing appropriate waste receptacles.
- Children under the age of 16 must be accompanied by an adult and closely supervised at all times. Young children should not wander or run around the park.
- No more than three dogs per person.
- No smoking, glass containers, alcohol, or food is allowed. This includes pet treats.
- No strollers, bicycles, skateboards, etc. are allowed.
- Keep your dog within view and under voice control at all times.
- Please be courteous to neighbors and control excessive barking.
- Owners must wear shoes at all times within the park.
- Puppies using the park must be at least 4 months old.
- Cars must be parked in designated parking areas only.

revised 8/21/17

APPENDIX "I"

LETTERS

FROM

WESTON AMERICAN LITTLE LEAGUE
WESTON PARKS & RECREATION
WESTON SOCCER CLUB

Stephen Polizzi – President

Weston American Little League

September 15, 2017

Re: Letter to the Weston Parks and Recreation Committee regarding the proposed dog park in Weston, CT.

To whom it may concern;

As President of the Weston American Little League and an active coach and parent, I'd like to take this opportunity to share my concerns regarding the proposed consideration of using space at Bisciglie Park for a dog park. Please keep in mind, this is my personal viewpoint, not the opinion of the Weston American Little League Board, however, I believe it is valid and worth consideration should the space at Bisciglie Park be further considered. Based on the amount of time I have spent at Bisciglie Park over the past 4 years, the WALL has recently been scheduling as many games and practices on the fields to give every player the opportunity to play on our premier fields. WALL has continually improved the quality of these fields and will continue to do so in the future to continue the growth of our thriving Little League program.

My main concerns are the amount of traffic we already have on weekends and week days. During spring and fall season, game days typically have many visitors on an ongoing basis starting as early as 9 am and ending at around 5pm. Parking during the weekends is often very limited, leaving visitors to park in unspecified parking areas. My primary concern is safety. The additional influx of visitors to the park will only increase the possibility of an accident, possibly with a child. To me, this is enough of a concern to completely take the consideration of using space at Bisciglie Park off the table. If the park is open to non-Weston residents, I would raise concerns over child endangerment. Weston American League is required to perform background checks on all its volunteers, not just coaches, but anyone that is on the field or operates in any capacity which involves our members and players. Let's not create an opportunity for a possible tragic event happening in our town.

I appreciate this opportunity to provide my viewpoints on why I believe Bisciglie Park should not be considered an option for the Weston dog park. I'll be more than happy to discuss my viewpoints further, please feel free to contact me.

Respectfully yours,

Stephen Polizzi

Weston American Little League – President

April 19, 2017

To:

Nina Daniel, First Selectman Town of Weston

Jonathan Luiz , Town Administrator

Tracy Kulikowski, Land Use Director

From:

The Weston Parks & Recreation Commission and David Ungar, Director Parks & Recreation Department

Re: Town owned Dog Park property options

The Parks & Recreation Commission was presented with a proposal at their regular meeting of February 13, 2017 for a Dog Park to be located at the Moore property on Davis Hill road.

After the proposal by Mark Harper and John Conte, and after Commission discussion, the Commission approved going forward with the plans for a dog park for this specific site.

Looking over the Town owned options for space for the proposed Dog Park that have adequate parking available I have the following report to submit.

Morehouse Farm Park, Newtown Tpk. 32.5 acres. All available usable land is currently developed with five athletic field areas, a pavilion storage building and parking lots with space for approximately 150 cars. The land not developed is ledge and undevelopable for this purpose.

Morehouse Farm Park is home to various sporting activities, specifically Weston Soccer with 600 participants, playing spring, summer and fall. Weston Youth Softball with 90 participants, 50/70 Little League, and an Adult Softball group that plays on Sundays. The fields are used 7 days a week with fields used after school during the week and all day on Saturday and Sundays. There are no fields at Morehouse that go unused. Presently, No dogs are allowed at Morehouse Farm Park and it is posted as such.

Bisceglie – Scribner Park, Newtown Tpk. 56 acres. This Town property is divided in half by the river. The developed part is divided in to two areas. First area is off of Newtown Turnpike and has three regulation Little League fields, a pavilion, scorer's booth and snack shed. There is parking for just over 100 cars available which is sufficient for three fields and also the pond use during the summer. The Weston Little

League has 305 participants and they play three seasons. The second developed area is Bisceglie – Scribner pond. This is a man made 200 feet by 80 foot blacktop swimming pond which is open in the summer free to Town Residents. The pond area also has a playground (which is open year round), picnic tables and three outbuildings for rest rooms, life guard house and maintenance equipment. The pond is enclosed by a four foot chain link fence and is fed by wells. Last summer we had a pond registration of almost 1,000 pond passes to our residents. All of the area that is not developed is wetland area or the ½ mile 22 station Kiwanis fitness trail. The second half of Bisceglie is across the river and has no access other than by Hillside Road, a one lane road with limited area for potential vehicle parking. This half of the park is mostly wetlands and is not desirable for a dog park due to its topography and wetlands and lack of access to adequate parking.

Important to note, When the Weston Intermediate School was built, the new School was put on the site of two well used baseball / softball fields. When the High School addition was constructed, this was put on the site of the HS varsity baseball and softball fields. This necessitated moving the HS baseball fields to Revson Field where we had two heavily utilized soccer fields. This was one of the many reasons for the Town constructing the Morehouse Farm Park fields and the Bisceglie- Scribner Park fields. Not necessarily as extra playing field space but as space needed in part to replace fields we lost due to the school construction.

Keene Park, River Road 12 acres. This property is a small pocket park with a toddler playground, picnic tables and a trail to the river. The area is mostly wetlands and has a small parking lot for approximately 10 -15 cars. This parking lot is used by fishermen and users of the playground.

Weston Transfer Station, Godfrey Road East. The Transfer Station is gated off after hours and no vehicular access is allowed after 3:45 due to the transfer station being closed. I am also unsure of any regulatory issues with a dog park being on top of a capped landfill. Although the property is large it is not a viable area as far as I am concerned for these reasons.

In Conclusion, The Parks and Recreation Commission does not believe any of these alternate locations to be appropriate for a dog park and any approval that was provided by the Commission was with respect to the Davis Hill site only.

May 22, 2017

Town Of Weston
56 Norfield Road
Weston, CT 06883

Dear Nina Daniel & Weston Board of Selectmen;

On behalf of the Weston Soccer Club, I submit this letter in strong opposition to the proposal that Morehouse Farm Park Field #5 (or any Weston soccer field) be designated for use as a dog park.

Every fall and spring, the Weston Soccer Club serves over five hundred Weston children ranging in ages from 2 years of age to 18 years of age and older, and from pre-school through High School and beyond. Each week, the Club uses every available soccer field in town -- including all soccer fields at Morehouse -- and it is a major challenge to organize the dozens of soccer teams, practices and games with the current field availability.

Put simply, without all existing soccer fields, the Club could not continue to accommodate every Weston child who wants to play soccer. Thus, the loss of any Weston soccer field would be a tremendous blow to the hundreds of Weston soccer players and their parents, the Weston soccer program itself and the Town of Weston.

Beyond the damage to the program that would result from the loss of a soccer field, the Club has several specific concerns with the proposal:

Safety: Although there are many reasons that designating Field #5 as a dog park is a bad idea, perhaps the most troubling is the danger it would create. On any day of the week, young children are practicing or playing soccer on all Morehouse Farm Park fields, including Field #4, which is directly adjacent to Field #5. The prospect of numerous unleashed dogs in close proximity to dozens of young children running around playing soccer is a recipe for disaster. Neither soccer balls nor kids stay where they are supposed to be for very long. It is a certainty that balls in play on field 4 will head over any fencing into field 5, and that young players will run into that area to retrieve them. The Club could not, on both moral and legal liability grounds, schedule practices and games with children directly adjacent to a dog park and thus the loss of Field #5 probably would mean that we could no longer use Field #4 either, doubling the harm to the program and Weston kids. Moreover, dogs inevitably will get loose from the dog park, putting dozens of children and adults at risk all over Morehouse. For these reasons alone, we suspect that the vast majority of the over one thousand parents with children in the Weston soccer program would be vehemently opposed to the use of any Morehouse Farm Park soccer field as a dog park.

Parking: Parking on the weekends at Morehouse is already a challenge, with numerous cars parking illegally along the road because there often are not enough parking spaces to accommodate all the home games that are being played. Safety in the Morehouse parking lot is already a concern. Add to this a dog park and the additional cars and numerous dogs that would necessarily accompany such a park and the town would be dealing with a parking and safety nightmare every weekend.

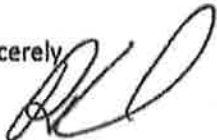
Required Field Size: While the loss of any town soccer field would be harmful to the soccer program, the loss of Field #5 would be particularly damaging. The Connecticut Junior Soccer Association has mandated that, beginning in fall 2017, soccer games at certain ages be played on specific field sizes. It so happens that Field #5 is the only Weston soccer field that meets this new size requirement for the younger age kids. Without Field #5, we could not comply with the mandated field size rules.

For these reasons, the Weston Soccer Club would strongly oppose any proposal to utilize an existing Weston town soccer field – and particularly Field #5 at Morehouse Farm Park – as a dog park.

While the Weston Soccer Club takes no position on whether a dog park in Weston is a good or bad idea, if there is going to be a dog park, we believe it should not come at the expense of the safety and enjoyment of the hundreds of children and their parents that participate in the Weston soccer program.

We would be happy to discuss our concerns with you further.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. Grace', written over the word 'Sincerely,'.

Robert Grace
President, Weston Soccer Club





APPENDIX "J"

AQUIFER PROTECTION AREAS

AQUIFER PROTECTION AREAS

Weston, CT

February 14, 2017

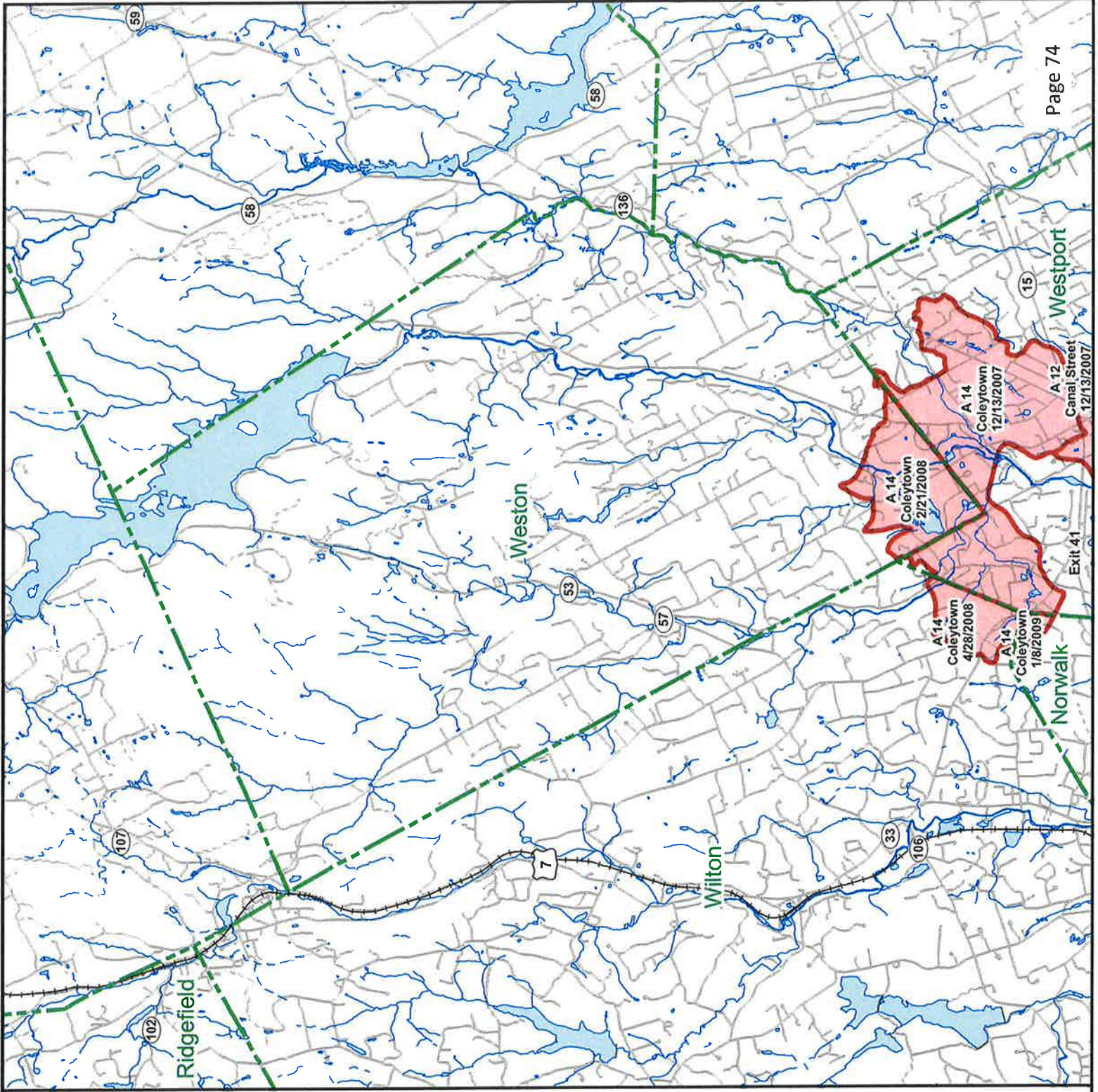
-  Level A APA (Final Adopted)
-  Level A APA (Final)
-  Level B APA (Preliminary)
-  Town Boundary

NOTE: The Aquifer Protection Areas were delineated through Connecticut's Level A and Level B Mapping Processes. Aquifer Protection Areas are delineated for active public water supply wells in stratified drift that serve more than 1000 people, in accordance with Sections 22a-354c and 22a-354z of the Connecticut General Statutes. Level B Mapping delineates a preliminary aquifer protection area, providing an estimate of the land area from which the well draws its water. Level A Mapping delineates the final Aquifer Protection Area, which becomes the regulatory boundary for land use controls designed to protect the well from contamination. As Level A Mapping is completed for each well field and approved by DEEP, it replaces the Level B Mapping. Final Adopted Level A Areas are those where towns have land use regulations for them.

Massachusetts and Rhode Island Wellhead Protection Areas may be shown for informational purposes.

QUESTIONS:

Bureau of Water Protection and Land Reuse
Planning and Standards Division
Phone: (860) 424-3020
www.ct.gov/deep/aquiferprotection



Towns with Aquifer Protection Areas

- * Avor.
- * Beacon Falls
- * Berlin
- * Bethany
- * Bethel
- * Bethlehem
- * Bolton
- * Bristol
- * Brookfield
- * Brooklyn
- * Burlington
- * Canterbury
- * Canton
- * Cheshire
- * Clinton
- * Colchester
- * Coventry
- * Cromwell
- * Danbury
- * Darby
- * East Lyme
- * East Windsor
- * Enfield
- * Essex
- * Farmington
- * Glastonbury
- * Goshen
- * Griswold
- * Guilford
- * Hamden
- * Killingly
- * Ledyard
- * Litchfield
- * Madison
- * Manchester
- * Mansfield
- * Meriden
- * Middletown
- * Naugatuck
- * New Britain
- * New Hartford
- * New Milford
- * New Rochelle
- * New York
- * North Canaan
- * North Haven
- * North Stoughton
- * Norwalk
- * Old Saybrook
- * Oxford
- * Plainville
- * Plymouth
- * Portland
- * Prospect
- * Putnam
- * Ridgefield
- * Rocky Hill
- * Salisbury
- * Shelton
- * Seymour
- * Simsbury
- * Southbury
- * Sprague
- * Stamford
- * Stonington
- * Thomaston
- * Thompson
- * Tolland
- * Vernon
- * Wallingford
- * Watertown
- * Westbrook
- * Weston
- * Westport
- * Willington
- * Wilton
- * Woodbury

* Towns in red have adopted the Final Aquifer Protection Areas

Connecticut Aquifer Protection Areas

Bureau of Water Protection and Land Reuse

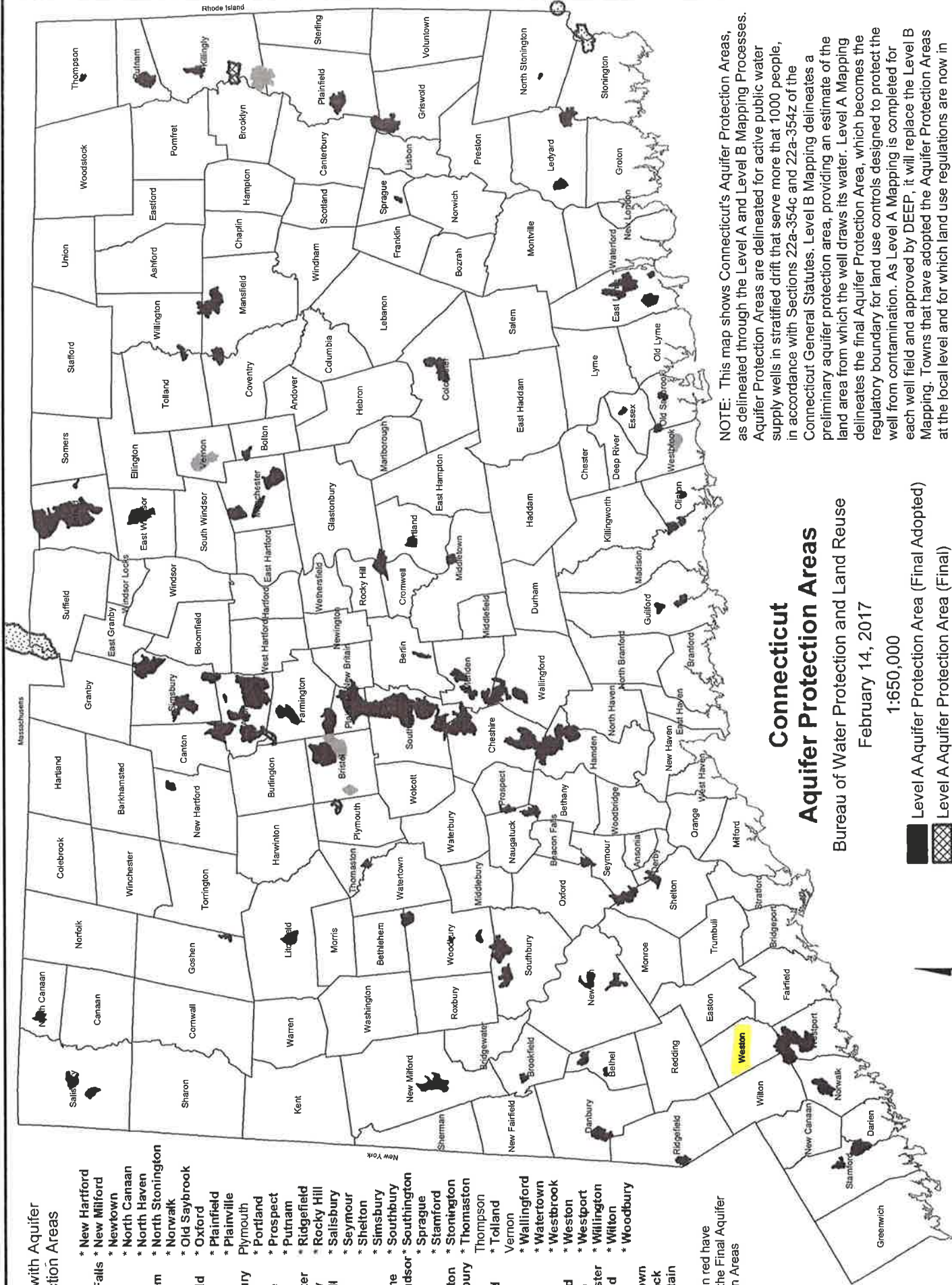
February 14, 2017

1:650,000

- Level A Aquifer Protection Area (Final Adopted)
- Level A Aquifer Protection Area (Final)
- Level B Aquifer Protection Area (Preliminary)
- Massachusetts Wellhead Protection Area
- Rhode Island Wellhead Protection Area



Connecticut Department of
Energy & Environmental Protection
79 Elm Street
Hartford, CT 06106



NOTE: This map shows Connecticut's Aquifer Protection Areas, as delineated through the Level A and Level B Mapping Processes. Aquifer Protection Areas are delineated for active public water supply wells in stratified drift that serve more than 1000 people, in accordance with Sections 22a-354c and 22a-354z of the Connecticut General Statutes. Level B Mapping delineates a preliminary aquifer protection area, providing an estimate of the land area from which the well draws its water. Level A Mapping delineates the final Aquifer Protection Area, which becomes the regulatory boundary for land use controls designed to protect the well from contamination. As Level A Mapping is completed for each well field and approved by DEEP, it will replace the Level B Mapping. Towns that have adopted the Aquifer Protection Areas at the local level and for which land use Regulations are now in place are designated by the solid red above and in red in the list of Towns with Aquifer Protection Areas. Wellhead protection areas in Massachusetts and Rhode Island are shown for informational purposes only.

APPENDIX “K”

PREVIOUS SOILS REPORTS
FOR
DAVIS HILL ROAD ACCESS

SOIL & WETLAND SCIENCE, LLC

OTTO R. THEALL

PROFESSIONAL SOIL SCIENTIST

PROFESSIONAL WETLAND SCIENTIST

2 LLOYD ROAD

NORWALK, CONNECTICUT 06850

OFFICE (203) 845-0278

CELL (203) 247-0650

FAX (203) 354-4881

EMAIL: soilwetlandsci@aol.com

SOIL INVESTIGATION REPORT

DAVIS HILL ROAD

WESTON, CONNECTICUT

JUNE 29, 2016

I conducted an on-site investigation of the soils on a portion of a vacant property located on Davis Hill Road in Weston, Connecticut on June 29, 2016. The examination for wetland soils was conducted in the field by inspection of approximately 50 soil samples taken with spade and auger.

Inland wetlands in Connecticut are lands, including submerged lands, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey. Watercourses include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses are to be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

The wetland line was marked in the field with flags numbered 1 through 8. The wetland soils consist of Leicester fine sandy loam (4). The non-wetland soils consist of Sutton fine sandy loam, extremely stony (52). The soil map units contain inclusions of other soil types. The results of this investigation are subject to change until they are accepted by Weston Conservation Commission.

Respectfully submitted:



Otto R. Theall

Professional Soil Scientist

SOIL SURVEY SKETCH MAP
DAVIS HILL ROAD
WESTON, CONNECTICUT
SOIL & WETLAND SCIENCE, LLC
OTTO R. THEALL
PROFESSIONAL SOIL SCIENTIST
JUNE 29, 2016

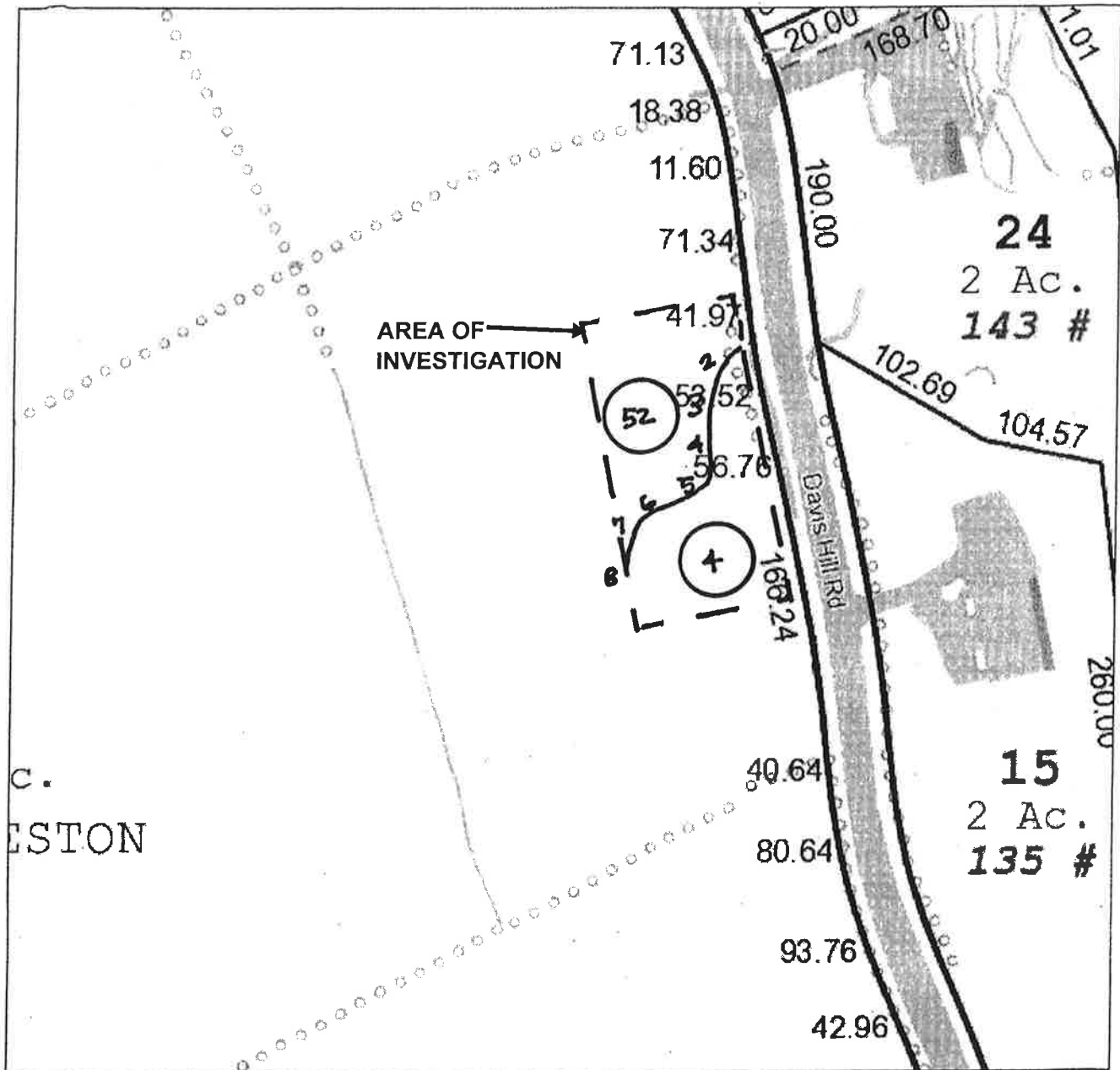
SOIL LEGEND:

Wetland Soils:

4 = Leicester fine sandy loam

Non-wetland Soils:

52 = Sutton fine sandy loam, e. stony



MAP DISCLAIMER - NOTICE OF LIABILITY

This map is for assessment purposes only. It is not for legal description or conveyances. All information is subject to verification by any user. The Town of Weston and its mapping contractors assume no legal responsibility for the information contained herein.

Approximate Scale: 1 inch = 100 feet

0 100 Feet



SOIL & WETLAND SCIENCE, LLC

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PROFESSIONAL WETLAND SCIENTIST
2 LLOYD ROAD
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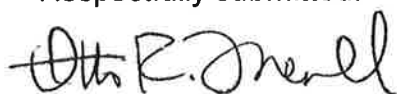
SOIL INVESTIGATION REPORT DAVIS HILL ROAD WESTON, CONNECTICUT AUGUST 21, 2017

I conducted an on-site investigation of the soils on a portion of a vacant property located on Davis Hill Road in Weston, Connecticut on June 29, 2016 and again on August 21, 2017. The examination for wetland soils was conducted in the field by inspection of soil samples taken with spade and auger.

Inland wetlands in Connecticut are lands, including submerged lands, which consist of any of the soil types designated as poorly drained, very poorly drained, alluvial, and floodplain by the National Cooperative Soils Survey. Watercourses include rivers, streams, brooks, waterways, lakes, ponds, marshes, swamps, bogs and all other bodies of water, natural or artificial, vernal or intermittent. Intermittent watercourses are to be delineated by a defined permanent channel and bank and the occurrence of two or more of the following characteristics: (A) evidence of scour or deposits of recent alluvium or detritus, (B) the presence of standing or flowing water for a duration longer than a particular storm incident, and (C) the presence of hydrophytic vegetation.

The wetland lines were marked in the field with flags numbered 1 through 8 and 201 through 207. The wetland soils consist of Leicester fine sandy loam (4). The non-wetland soils consist of Sutton fine sandy loam, extremely stony (52), Hollis-Chatfield-Rock outcrop complex (75) and Paxton and Montauk fine sandy loams (84). The soil map units contain inclusions of other soil types. The results of this investigation are subject to change until they are accepted by Weston Conservation Commission.

Respectfully submitted:



Otto R. Theall
Professional Soil Scientist

